



*Integrating  
the Life Sciences  
from Molecule to  
Organism*

## Inside

**ACDP 2000  
Survey Results**  
p. 67

**APS Election  
Results**  
p. 80

**2001 Membership  
Statistics**  
p. 86

**NIH Reconsiders  
Grant Review  
Procedures**  
p. 90

**FASEB  
Recommends \$23.6  
Billion for NIH**  
p. 91

# The Physiologist

Volume 44, Number 2

April 2001

## John E. Hall 74th President of APS

### The Postgenomic Era— A Golden Era for Physiologists?

Thank you, members of APS, for the privilege and challenge of serving as the 74th President of the APS. It is the highest honor for me because the APS has been my professional home for almost 30 years, even before I became a regular member. APS has nurtured my career, as well as the careers of many others, through its meetings, publications, and education programs. Serving as APS President is a great challenge because of the complexity of the Society and its many programs and the rapid changes that will occur in the discipline of physiology in this “postgenomic era,” which I believe can be a golden era for physiologists.

It is the privilege of each incoming APS President to write a “President’s Message” to the membership. It would be my preference to write this article *after* serving my term as President. Although incoming presidents usually have considerable experience, serving APS in multiple capacities, most of us probably do not fully understand the responsibilities and possibilities of the job until the end of our one-year terms. To paraphrase Mark Twain (a quote also recently used by Paul Johnson, after receiving the Distinguished Service Award from the Association of Chairs of Departments of Physiology): “There are things about lifting a cat by the tail that you can only learn by lifting a cat by the tail.” I imagine that this is also true for the job of APS President—I am not completely sure that anyone knows exactly what to expect!

It is customary to write about the “State of APS” and offer sage advice about the challenges of the future. My predecessors have provided illuminating commentary on the current state of the Society (1, 3-6). Two of them (1, 5) began



their messages with a quote from Dickens’ *Tale of Two Cities* ... “It was the best of times, ...it was the worst of times....” Who can argue with this view of APS and the discipline of Physiology? We are currently experiencing an unparalleled growth of NIH funding for research, amazing advances in technology, and great financial prosperity in APS (although the recent downturn in the stock market may have diminished our assets somewhat). APS has a dedicated and highly skilled administrative staff led by Executive Director Marty Frank, Melinda Lowy, Margaret Reich (Publications), Marsha Matyas (Education), Robert Price (Business), Linda Allen (Membership), Alice Ra’anan (Public Affairs), and many others. Together, the 65-70 people who staff APS headquarters keep the society running smoothly in spite of the problems caused by APS Presidents!!

At the same time that we have prosperity, many of us are concerned about the discipline of physiology and APS, especially its ability to

*(continued on page 74)*

# The Physiologist

Volume 44 Number 2

April 2001

## Contents

<b>John E. Hall</b> 74th President of APS	65	<b>News From Senior</b> Physiologists	92
<b>ACDP 2000 Survey Results</b> Aubrey E. Taylor and Donald B. Bers	67	<b>Positions Available</b>	95
<b>APS Election Results</b>	80	<b>Books Received</b>	98
<b>APS Conferences</b>	81	<b>People &amp; Places</b>	98
<b>Genome and Hormones: An</b> Integrative Approach to Gender Differences in Physiology	81	<b>Announcements</b>	100
<b>Cellular and Molecular Physiology</b> of Sodium-Calcium Exchange	82	<b>Lake Cumberland Biological</b> Transport Group Meeting	100
<b>Membership</b> New Regular Members	83	<b>Book Wanted</b>	101
New Student Members	84	<b>FASEB Releases Latest</b> Breakthroughs Article	101
New Affiliate Members	85	<b>Invitation to Attend the ISP-2002</b> Congress in Budapest	102
Recently Deceased Members	85	<b>Scientific Meetings</b> and Congresses	103
Membership Statistics	86	<b>APS Membership</b> Application	105
<b>APS News</b> Introducing Robert G. Carroll	88		
Introducing John N. Stallone	89		
<b>Public Affairs</b> NIH Reconsiders Grant Review Procedures	90		
FASEB Recommends \$23.6 Billion for NIH	91		

Published bimonthly  
and distributed by  
The American  
Physiological Society

9650 Rockville Pike  
Bethesda, Maryland 20814-3991  
ISSN 0031-9376

**Gerald F. DiBona**  
President

**Walter F. Boron**  
Past President

**John E. Hall**  
President-Elect

**Martin Frank**

Editor and Executive Director

Councillors

**Hannah V. Carey, William W. Chin,  
Douglas C. Eaton, Steven C. Hebert,  
Phyllis M. Wise, Jo Rae Wright**

Ex Officio

**Dale J. Benos,**

**Mordecai P. Blaustein,  
Robert G. Carroll,**

**Judith A. Neubauer, Celia D. Sladek**

**Publications Committee:** Chairman:

Dale J. Benos; Members: David H. Alpers, R. Davis Manning, Jr., Richard A. Murphy, James A. Schafer. Director of Publications: Margaret Reich. Design and Copy Editor: Joelle R. Grossnickle.

**Subscriptions:** Distributed to members as part of their membership. Nonmembers in the USA: individuals \$45.00; institutions \$70.00. Nonmembers in Canada and Mexico: individuals \$50.00; institutions \$75.00. Nonmembers elsewhere: individuals \$55.00; institutions \$80.00. Single copies and back issues when available, \$15.00 each; single copies and back issues of Abstracts issues when available, \$25.00. Subscribers to *The Physiologist* also receive abstracts of the Conferences of the American Physiological Society.

The American Physiological Society assumes no responsibility for the statements and opinions advanced by contributors to *The Physiologist*.

Deadline for submission of material for publication: Jan. 10, February issue; March 10, April issue; May 10, June issue; July 10, August issue; Sept. 10, October issue; Nov. 10, December issue.

Please notify the central office as soon as possible if you change your address or telephone number.

Headquarters phone: 301-530-7164.

Fax: 301-571-8305.

<http://www.the-aps.org>

Printed in the USA



# ACDP 2000 Survey Results

## Association of Chairs of Departments of Physiology 2000 Survey Results

**Aubrey E. Taylor and Donald M. Bers**

**Department of Physiology, University of South Alabama, Mobile, Alabama and  
Loyola University, Chicago, Illinois**

The Association of Chairs of Departments of Physiology annual survey was mailed to 176 physiology departments throughout the US, Canada and Puerto Rico. A total of 92 surveys were returned, for a response rate of 52%. This rate is lower than that of the 1999 survey (63%). Of the 92 surveys returned, there were 44 public and 34 private medical schools including 14 non-medical (which are public veterinarian or osteopathic schools).

The data provide the reader with general trends of faculty, salary, overall departmental budgets, and space available for research. Faculty salary information (Tables 1-3) is derived

from the total compensation column, which includes any supplementary income but not fringe benefits. In addition to salary information, further data are provided on tenure, gender, ethnicity, and salary by number of years in rank.

The statistics are based on 92 responses (3 from Canada) but salary, tenure, gender, ethnicity, and number of years in rank results are calculated on the number of respondents providing this information. However, 2 institutions did not provide any faculty salary information.

Student/trainee information is provided by ethnicity for predoctoral and postdoctoral categories, as well as predoctoral

**Table 1. Faculty Salaries for Fiscal Year 2000**

	Mean	%Change From Previous Survey	Minimum	Maximum	No. of Faculty
<b>Chairperson</b>					
All Schools	\$163,416	4.5	\$59,611	\$295,333	87
Medical Public	168,684	8.8	64,920	262,106	40
Medical Private	173,354	7.3	113,236	295,333	28
Nonmedical	136,163	17.2	69,249	197,723	12
Female	140,275	5.5	59,611	240,635	7
<b>Professor</b>					
All Schools	111,640	10.2	41,616	259,900	658
Medical Public	109,729	7.4	41,965	257,500	284
Medical Private	120,424	11.6	41,616	259,900	180
Nonmedical	106,471	13.1	51,720	251,368	99
Female	106,095	5.6	50,502	234,883	95
<b>Associate Professor</b>					
All Schools	80,229	7.5	38,916	151,040	358
Medical Public	79,474	4.6	43,447	127,256	146
Medical Private	83,946	11.1	45,960	151,040	94
Nonmedical	77,741	7.2	50,264	137,256	39
Female	78,431	4.1	38,916	131,810	79
<b>Assistant Professor</b>					
All Schools	64,699	9.5	28,000	135,000	310
Medical Public	65,947	9.7	28,000	121,386	98
Medical Private	65,899	10.3	40,722	135,000	91
Nonmedical	64,168	11.2	31,660	101,192	28
Female	62,371	8.6	33,280	90,870	93
<b>Instructor</b>					
All Schools	43,442	11.4	22,000	84,318	53
Medical Public	40,367	3.3	22,000	62,543	24
Medical Private	51,928	25.2	37,856	81,900	6
Nonmedical	54,593	31.1	43,446	66,204	3
Female	42,914	14.8	30,000	84,318	20

# ACDP 2000 Survey Results

al trainee completions, stipends provided, and type of support.

Departmental budget information (Table 4) shows type of support, faculty

salaries derived from grants along with negotiated indirect costs to the departments. Table 5 ranks responding Institutions according to their total dol-

lars, research grant dollars, and departmental space. Space averages are presented as research, administration, teaching and other. ❖

**Table 2. Average Salary by Number of Years in Rank**

Chairpersons			Professors			Associate Professors			Assistant Professors			Instructors		
Years	Salary	No. of faculty	Years	Salary	No. of faculty	Years	Salary	No. of faculty	Years	Salary	No. of faculty	Years	Salary	No. of faculty
0-5	\$143,770	25	0-5	\$105,023	176	0-5	\$79,207	193	0-5	\$64,525	245	0-5	\$42,462	50
6-10	161,469	15	6-10	106,568	156	6-10	81,726	65	6-10	63,557	50	6-10	50,492	8
11-15	180,983	24	11-15	115,340	145	11-15	79,313	42	11-15	75,285	8	11-15	59,265	5
16-20	173,903	11	16-20	117,236	74	16-20	81,334	27	16-20	61,428	5	21-25	0	0
21-25	158,451	8	21-25	119,989	66	21-25	87,121	19	21-25	89,625	1	26+	38,000	1
26+	169,199	4	26+	122,336	42	26+	78,385	12	26+	63,807	2			

## Type of Institution (n = 92)

Support	MD/DO	Pharmacy
Public	55	23
Private	37	59
	DDS	Other biomedical
	DVM	Life science
	Allied health	Bioengineering
		Other

## Student/Trainee Summary

Total number of US citizen/resident alien pre- and postdoctoral students/trainees			
Predocctoral male	539	Postdoctoral male	245
Predocctoral female	422	Postdoctoral female	147
Total number of foreign pre- and postdoctoral students/trainees			
Predocctoral male	262	Postdoctoral male	411
Predocctoral female	181	Postdoctoral female	211

## Faculty Summary (n = 1,498)

	Male	Female	Total
Native American	2	1	3
Asian/Pacific Islander	106	23	129
Black, not Hispanic origin	15	9	24
Hispanic	42	11	53
White, not of Hispanic origin	998	242	1,240
Foreign national	39	9	48
Total			1,497

## Ethnicity of each pre- and postdoctoral student/trainee

	Predocctoral		Postdoctoral	
	Male	Female	Male	Female
Native American	8	2	3	0
Asian/Pacific Islander	65	51	40	28
Black, not Hispanic origin	33	31	11	8
Hispanic	27	19	11	5
White, not of Hispanic origin	406	319	180	106

## Tenure status in each department by degree (n = 1,503)

	Tenured	Not Tenured	Not Eligible	Total
MD	50	11	8	69
PhD	873	270	179	1,326
2 Doctorates	46	10	7	63
Other	24	15	6	45

## Number of foreign pre- and postdoctoral students/trainees

	Predocctoral		Postdoctoral	
	Male	Female	Male	Female
African	12	1	10	1
Asian/Pacific Islander	129	106	240	110
Central and South American	14	5	26	12
European, Canadian, Australian	74	58	105	78
Middle Eastern	33	11	30	10
Other	10	6	10	12

# ACDP 2000 Survey Results

## Number of foreign pre- or postdoctoral trainees whose primary source of support is:

	<i>Predoctoral</i>	<i>Postdoctoral</i>
Institutional	195	73
Research grants	230	478
Private foundations	6	50
Home (foreign) governments	19	30
Other	11	12

## Foreign National predoctoral trainee completions:

	<i>Male</i>	<i>Female</i>
African	0	0
Asian or Pacific Islander	16	9
Central or South American	2	5
European, Canadian, Australian	7	2
Middle Eastern	2	0

## Predocotrinal Trainee Completions

Number of trainees who have completed doctoral work during the year ended June 30, 2000

<i>Predocotrinal male</i>	100	<i>Predocotrinal female</i>	147
---------------------------	-----	-----------------------------	-----

## Average annual starting stipend (in US dollars) for trainees:

<i>Predocotrinal (n = 80)</i>	<i>Postdocotrinal (n = 73)</i>
\$16,593	\$28,331

## US citizen/resident alien predoctoral trainee completions:

	<i>Male</i>	<i>Female</i>
Native American	3	1
Asian or Pacific Islander	19	8
Black, not of Hispanic origin	1	2
Hispanic	5	2
White, not of Hispanic origin	92	71

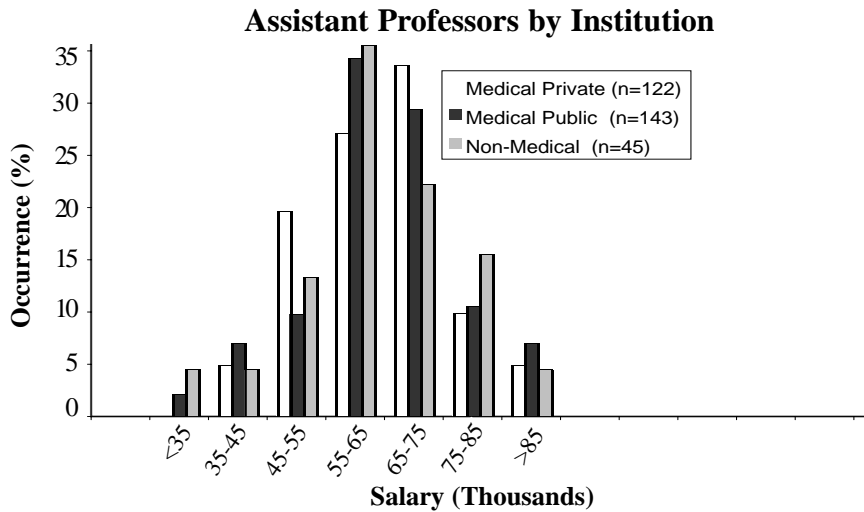
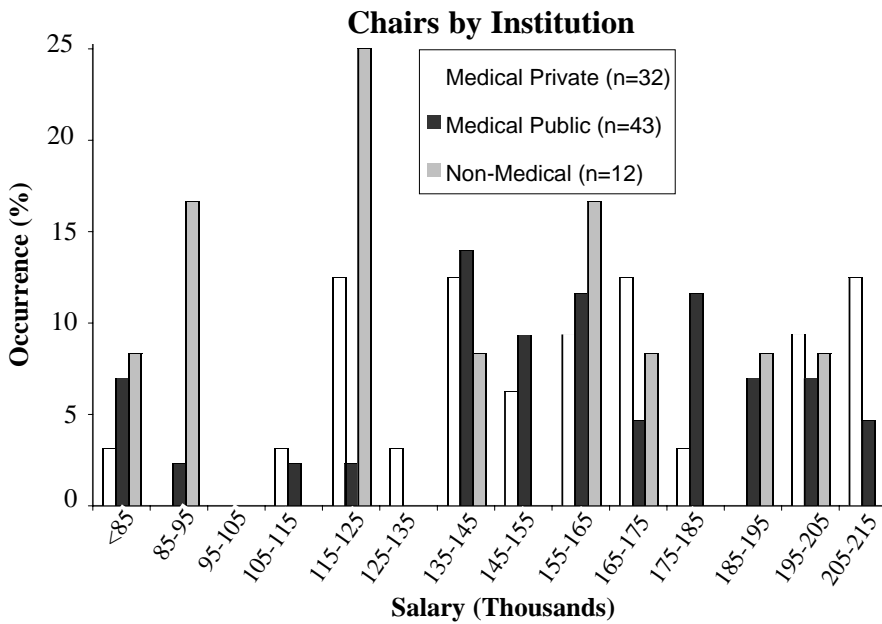
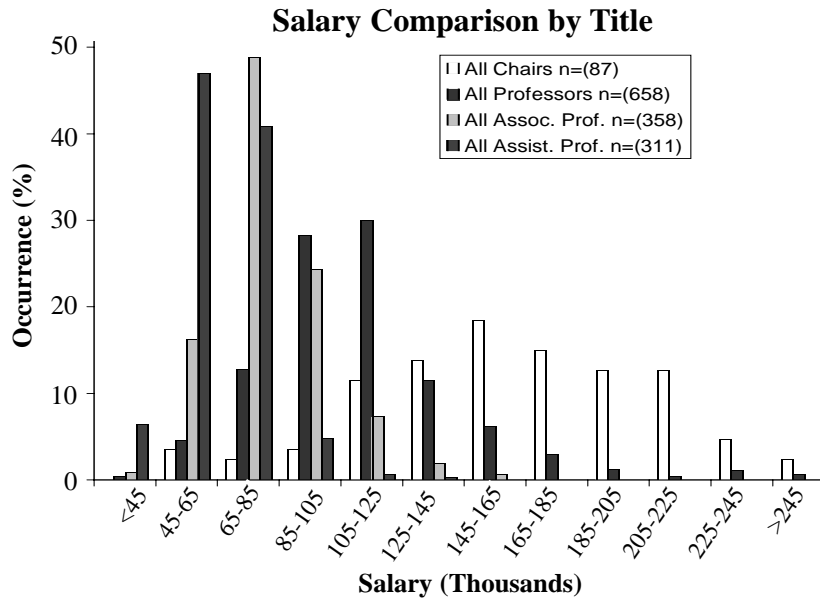
## Space Controlled by Department (n = 88)

Research	16,898
Administration	2,990
Teaching	2,993
Other	1,987
Total space	24,868

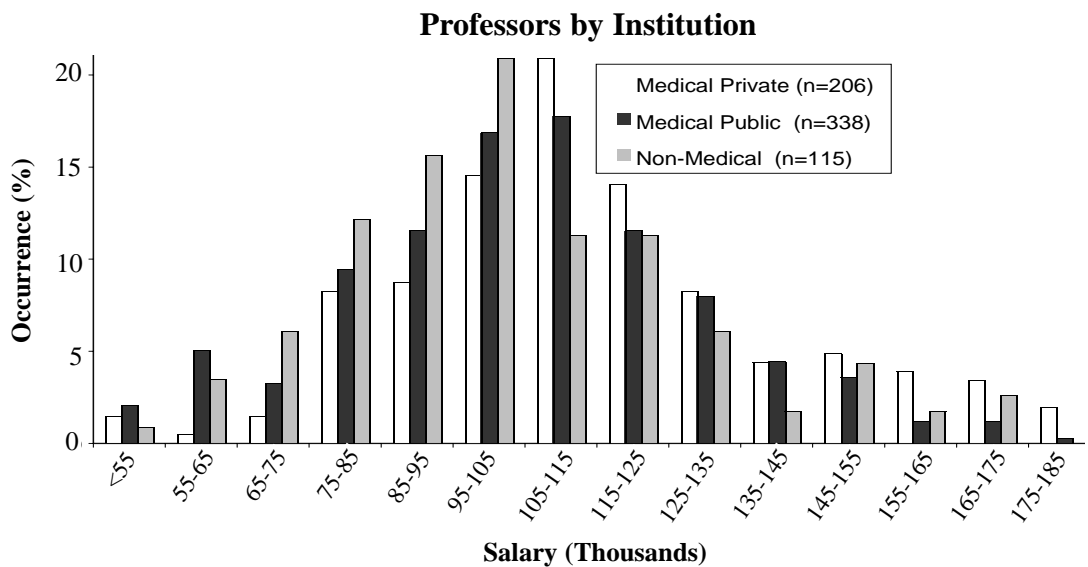
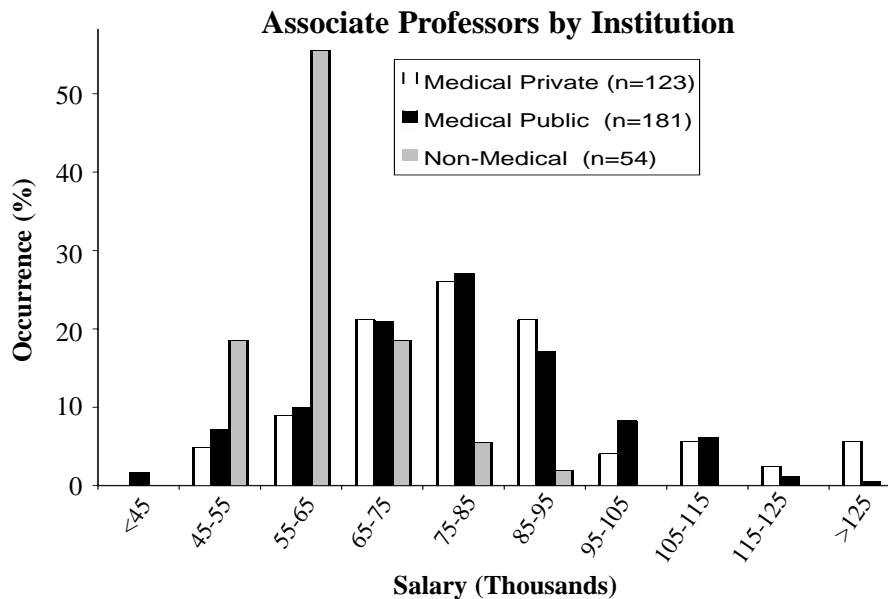
**Table 3. Salaries by Region**

Region	Median	Minimum	Maximum	Number	
Chairpersons					
Northeast	\$186,887	\$ 92,537	\$295,333	20	Northeast: ME, NH, VT,
Midwest	168,988	92,326	262,106	21	NY, MA, RI,
South	157,964	120,120	220,800	28	CT, NJ, PA,
West	167,333	94,478	230,560	13	MD, DE, DC
Canada/Puerto Rico	66,477	59,611	73,605	5	
Professors					
Northeast	111,280	41,616	203,976	156	Midwest: MI, OH, IN,
Midwest	112,607	65,945	237,314	160	IL, WI, IA,
South	108,159	52,400	257,500	188	MO, KS, NE,
West	126,095	54,200	259,900	128	ND, SD, MN
Canada/Puerto Rico	61,863	41,865	92,931	26	
Associate Professors					
Northeast	83,080	47,769	131,810	81	South: VA, WV, KY,
Midwest	83,495	50,264	151,040	120	TN, NC, SC,
South	78,066	54,971	148,816	105	GA, FL, AL,
West	83,687	56,820	121,628	34	MS, AR, LA,
Canada/Puerto Rico	50,473	38,916	88,380	18	OK, TX
Assistant Professors					
Northeast	64,448	32,398	121,386	86	West: AK, HI, MT,
Midwest	68,193	33,280	119,600	70	WY, CO, NM,
South	63,223	40,722	135,000	106	AZ, ID, WA,
West	68,146	42,840	87,725	40	OR, CA, UT
Canada/Puerto Rico	39,192	28,000	47,580	8	
Instructors					
Northeast	47,728	34,000	84,318	10	
Midwest	40,253	30,000	54,130	12	
South	42,760	29,075	81,900	24	
West	48,983	36,414	66,204	6	
Canada/Puerto Rico	22,000	22,000	22,000	1	

# ACDP 2000 Survey Results



# ACDP 2000 Survey Results



**Table 4. Budgets by Institutions**

	All Institutions	No.	Private Medical	No.	Public Medical	No.	Nonmedical	No.
Institutional	\$1,642,598	90	\$1,496,691	33	\$1,567,147	43	\$1,863,955	14
Outside research grants (direct costs only)	3,390,476	87	3,739,868	33	3,352,864	42	3,078,695	12
Training grants (direct costs only)	349,156	47	391,008	17	278,406	26	378,054	4
Endowments	277,405	40	491,648	16	114,503	17	226,064	7
Indirect recovery costs (amount to dept.)	163,954	56	169,467	12	196,497	35	125,898	9
Other budget support	319,450	67	524,894	23	308,531	38	124,924	6
Average Departmental Budget	1,023,840		1,135,596		969,658		966,265	
Standard deviation	1,291,147		1,355,586		1,286,907		1,230,948	

#### Financial Information

Percentage of total faculty salaries derived from research grants (not including fringe benefit amounts):	31.4%	(n = 78)
Current fringe benefit rate most frequently used for primary faculty:	24.1%	(n = 89)
Percentage of allocated faculty salary dollars raised from grants, etc., directly returned to your department:	73.5%	(n = 48)
Federally negotiated indirect cost rate for FY 99-00 on campus:	50.8%	(n = 85)
off campus:	26.6%	(n = 65)
Percentage of indirect costs returned to your department:	15.7%	(n = 51)



# ACDP 2000 Survey Results

**Table 5. Complete Ranking According to Total Dollars**

Rank	Total Dollars	Rank Research Grant Dollars	Research Grant Dollars	Rank Research Dollars/ Faculty	Research Dollars/ Faculty	Rank Total Research Space	Research Space (sq. ft.)	Rank Research Dollars/ sq. ft.	Research Dollars/ sq. ft.	No. of Faculty
1	\$26,211,294	1	\$21,620,090	1	\$1,271,770					17
2	15,719,408	3	11,635,470	2	895,036	6	31,125	8	\$374	13
3	15,245,917	2	12,764,957	11	327,307	10	28,137	3	454	39
4	13,302,480	5	10,029,335	5	455,879	25	22,601	4	444	22
5	12,817,040	7	6,741,826	8	421,364	55	12,681	1	532	16
6	12,782,570	4	10,628,913	4	483,132	1	45,421	28	234	22
7	11,320,508	22	4,600,033	32	209,092	11	27,396	43	168	22
8	10,468,833	6	6,791,654	23	251,543	23	23,039	13	295	27
9	9,929,907	10	6,009,751	27	222,583	24	22,637	19	265	27
10	9,549,546	14	5,583,464	19	265,879	12	26,670	32	209	21
11	9,308,041	20	5,046,706	31	210,279	13	26,500	37	190	24
12	9,305,928	9	6,200,000	22	258,333	3	35,500	41	175	24
13	9,221,957	16	5,344,068	34	190,860	29	21,014	23	254	28
14	8,830,568	18	5,154,307	18	271,279	2	36,063	50	143	19
15	8,625,391	25	4,428,708	30	210,891	18	25,389	42	174	21
16	8,588,474	43	2,728,191	9	389,742	48	14,899	39	183	7
17	8,300,315	17	5,333,020	36	190,465	16	26,225	34	203	28
18	8,238,049	21	4,957,245	25	247,862	14	26,434	38	188	20
19	8,220,500	11	6,000,000	6	428,571	9	29,000	33	207	14
20	8,057,077	19	5,055,050	17	280,836	19	24,917	35	203	18
21	8,043,758	15	5,430,636	39	181,021	36	18,926	15	287	30
22	7,861,000	12	6,000,000	7	428,571	32	20,008	12	300	14
23	7,679,614	8	6,560,474	3	596,407	43	16,776	5	391	11
24	7,662,009	13	5,648,079	12	313,782	26	21,334	20	265	18
25	7,287,130	32	3,700,000	38	185,000	51	14,116	22	262	20
26	7,275,823	24	4,431,582	20	260,681	42	17,050	24	254	17
27	7,089,774	30	3,946,759	37	187,941	4	32,665	63	121	21
28	7,054,393	28	4,100,195	15	292,871	40	17,655	29	232	14
29	6,775,619	27	4,150,338	40	180,449	33	19,707	31	211	23
30	6,740,227	31	3,733,237	48	155,552	20	24,402	47	153	24
31	6,464,842	33	3,700,000	49	154,167	17	26,025	51	142	24
32	6,298,042	23	4,452,740	41	178,110	38	18,000	25	247	25
33	6,215,938	38	3,047,903	35	190,494	34	19,480	44	156	16
34	6,199,773	45	2,460,205	74	74,552	39	17,737	54	139	33
35	5,941,991	35	3,226,151	55	140,267	7	30,662	70	105	23
36	5,821,753	50	2,230,484	62	106,214	75	7,574	14	294	21
37	5,634,675	29	4,075,000	10	339,583	42	17,050	26	239	12
38	5,559,797	42	2,787,606	44	163,977	30	20,521	56	136	17
39	5,552,315	57	1,987,000	60	116,882	81	5,100	7	390	17
40	5,532,907	52	2,119,657	76	70,655	21	24,241	74	87	30
41	5,496,217	26	4,261,376	42	177,557	8	30,451	53	140	24
42	5,338,035	49	2,297,726	63	99,901	22	23,891	73	96	23
43	5,273,616	56	1,993,335	75	71,191	15	26,333	77	76	28
44	5,103,986	46	2,436,477	61	110,749	58	12,398	36	197	22



## ACDP 2000 Survey Results

**Table 5 (continued). Complete Ranking According to Total Dollars**

Rank	Total Dollars	Rank Research Grant Dollars	Research Grant Dollars	Rank Research Dollars/ Faculty	Research Dollars/ Faculty	Rank Total Research Space	Research Space (sq. ft.)	Rank Research Dollars/ sq. ft.	Research Dollars/ sq. ft.	No. of Faculty
45	\$5,073,148	37	\$3,071,806	13	\$307,181	52	13,712	30	\$224	10
46	5,034,373	41	2,846,139	21	258,740	80	5,404	2	527	11
47	5,026,588	44	2,718,191	50	151,011	28	21,287	61	128	18
48	5,002,565	36	3,224,492	14	293,136	60	11,993	18	269	11
49	4,694,794	40	2,933,788	45	162,988	35	18,991	45	154	18
50	4,570,184	34	3,450,149	16	287,512	63	10,458	9	330	12
51	4,543,816	67	1,388,379	26	231,397	59	12,251	67	113	6
52	4,427,103	54	2,019,806	52	144,272	46	15,259	58	132	14
53	4,368,536	47	2,400,971	28	218,270	65	10,093	27	238	11
54	4,242,389	39	3,000,000	24	250,000	69	9,390	11	319	12
55	4,077,616	51	2,160,000	53	144,000	27	21,309	71	101	15
56	3,854,000	63	1,620,000	77	67,500	45	16,292	72	99	24
57	3,613,820	48	2,364,964	43	168,926	77	7,253	10	326	14
58	3,500,891	59	1,749,454	64	97,192	31	20,464	76	85	18
59	3,493,541	68	1,344,470	66	96,034	37	18,732	80	72	14
60	3,287,984	61	1,699,419	54	141,618	56	12,500	55	136	12
61	3,199,600	53	2,028,677	65	96,604	44	16,699	62	121	21
62	3,196,427	58	1,808,603	56	129,186	64	10,257	40	176	14
63	3,167,630	62	1,622,555	67	95,444	62	10,526	46	154	17
64	3,161,747	55	2,005,000	33	200,500	49	14,881	57	135	10
65	3,128,765	60	1,728,919	29	216,115	78	6,566	21	263	8
66	2,951,795	64	1,525,361	68	95,335	61	10,765	52	142	16
67	2,806,400	65	1,478,068	51	147,807	66	9,882	49	150	10
68	2,640,856	79	671,950	82	31,998	47	15,000	82	45	21
69	2,600,337	75	1,019,000	70	92,636	70	9,131	68	112	11
70	2,567,484	69	1,289,678	72	85,979					15
71	2,469,147	72	1,225,012	69	94,232	73	8,023	48	153	13
72	2,346,065	73	1,033,783	71	86,149	74	7,874	59	131	12
73	2,325,366	74	1,028,251	79	64,266	53	13,648	78	75	16
74	2,228,862	71	1,265,452	47	158,182	67	9,825	60	129	8
75	2,222,971	80	561,189	81	40,085	68	9,558	81	59	14
76	2,141,826	76	916,895	73	76,408	72	8,065	66	114	12
77	2,065,865					54	13,316			7
78	2,061,021	66	1,431,350	46	159,039	57	12,470	65	115	9
79	2,022,648	78	776,434	78	64,703	76	7,369	69	105	12
80	1,891,885	70	1,287,384	59	117,035	50	14,857	75	87	11
81	1,358,766	77	870,149	57	124,307	84	3,100	17	281	7
82	937,100	85	65,500	86	8,188	87	900	79	73	8
83	869,855	86	60,485	85	10,081	71	8,483	85	7	6
84	750,148	82	469,159	58	117,290	86	1,200	6	391	4
85	622,143	81	534,504	80	53,450	82	4,570	64	117	10
86	481,259					83	3,527			5
87	307,783	83	95,000	83	15,833	85	2,600	83	37	6
88	149,000	84	90,000	84	15,000	79	5,500	84	16	6
Average:	5,853,850		3,491,978		205,522		16,880		191	17

Three departments did not give complete information and were not included in the table.

## 74th APS President

(continued from page 65)

attract the brightest new investigators to the field of physiology, to attend our meetings, and to publish in our journals. There is concern that physiologists may be rapidly becoming indistinguishable from other basic scientists and that this will lead to further merging of physiology departments with other basic science departments. There is also uncer-

tainty about the future of academic medical centers.

The strengths and weaknesses of APS have been summarized by most of our previous presidents, and I will not try to do this again. Instead, I will discuss a few key goals that I have for APS: 1) to enhance the vitality and excellence of the APS meetings and publications; 2) to further strengthen the APS sections;

3) to develop a “translational research” initiative; and 4) to increase the visibility of physiology in the eyes of the public, academic institutions, and funding agencies. Many of these goals are intertwined and will be important in helping APS to achieve one of its most important goals—to attract the best new investigators and teachers to join APS.

### Introducing....John E. Hall

John Hall is the Guyton Professor and Chairman of Physiology and Biophysics and Director of the Center of Excellence in Cardiovascular-Renal Research at the University of Mississippi Medical Center. Hall received his doctorate in physiology with James Schwinghamer at Michigan State University in 1974 and did postdoctoral training at the University of Mississippi Medical Center with Arthur Guyton before joining the faculty in 1976. He was promoted to full professor in 1982 and appointed as department Chair in 1989.

Hall's major research interests include cardiovascular and renal physiology, mechanisms of hypertension, the renin-angiotensin system, obesity and insulin resistance, and modeling and computer simulation of the cardiovascular-renal systems. His early work demonstrated the importance of the direct intrarenal actions of angiotensin II (ANG II) in regulating renal tubular sodium reabsorption, renal-pressure natriuresis, and long-term blood pressure. His studies also found that ANG II, through its vasoconstrictor effects on efferent arterioles, plays an important role in feedback control of glomerular filtration. These studies provided the physiological basis for understanding why renin-angiotensin system blockade may cause severe decreases in glomerular filtration rate in patients with underperfused kidneys (e.g., in renal artery stenosis), whereas renin-angiotensin system blockade may be beneficial in lowering

glomerular pressure and limiting glomerular injury in patients with overperfused kidneys (e.g., in diabetes). His laboratory also was the first to demonstrate that renal-pressure natriuresis plays a crucial role in maintaining sodium balance in several experimental models of hypertension and that increased arterial pressure occurs as an essential compensation for impaired kidney function and an inability to maintain sodium balance at normal arterial pressure. In recent years, his research has helped to unravel the renal and neurohumoral mechanisms that link obesity with hypertension and kidney disease. His research has been continuously funded by the National Heart, Lung and Blood Institute (NHLBI) since 1975, and he has been the principal investigator of a Program Project Grant from NHLBI since 1988.

Hall has authored or co-authored over 390 publications and has written or edited 11 books, including the *Textbook of Medical Physiology*, which he co-authors with Arthur Guyton. He is Chief Editor of *The American Journal of Physiology: Regulatory, Integrative and Comparative Physiology* and serves on the editorial boards of several international journals. He is past Chairman of the Council for High Blood Pressure Research, American Heart Association (AHA); Chair of the Committee of Scientific Councils, AHA; and President-Elect of the International Society of Hypertension. He also serves on the executive committee

of The American Society of Hypertension and the Board of Directors of the AHA.

Hall has been an active member of APS since 1978. He is a member of the Water and Electrolyte Homeostasis Section, the Renal Section, and a Fellow of the Cardiovascular Section. He served as Chair, Treasurer, and Councillor of the Water and Electrolyte Homeostasis Section, as a member of APS Council in 1991, as Chair of SAC from 1997-2000, on the APS Strategic Planning Committees in 1992 and 2000, on the Long-Range Planning Committee, on the Task Force for Translational Research, on the Blue Ribbon Panel on APS Programming, and on several other committees of APS. Hall's awards include the Richard Bright Award of the American Society of Hypertension, the Harry Goldblatt Award of the American Heart Association, the Merck, Sharp and Dohme International Research Award from the International Society of Hypertension, the Lewis Dahl Award of the American Heart Association, the Marion Young Scholar Award of the American Society of Hypertension, the Ernest Starling Lectureship of the APS, The Burroughs Wellcome Fund Visiting Professor in Basic Medical Sciences, the Special Research Achievement Award of the AHA-Mississippi, an NIH Career Development Award, and the A.P. Barnard and Billy S. Guyton Distinguished Professorships of The University of Mississippi.

### Developing a “Meeting Within a Meeting” Concept for Experimental Biology

A strength of APS is that it represents integrative biology at all levels of organization, from molecule through human. This unique strength, however, has also been considered by some to be a weakness, especially when we consider our primary annual meeting, Experimental Biology.

The tremendous growth of knowledge that occurred in molecular biology and genomics has led many of us to become very reductionist in our research and to favor specialized society meetings where we discuss our work with like-minded researchers. Birds of a feather like to flock together, and this has led to the proliferation of small specialty meetings where in-depth discussions on very narrow topics can occur. This is undoubtedly the reason that highly focused, interactive meetings such as the Gordon Conferences and FASEB Summer Conferences have become so popular. Some feel that the large “generalist” meetings, such as Experimental Biology, do not offer a critical mass of the best investigators in their field.

This general problem has been discussed by previous APS Presidents, and some have provided recommendations for solutions. Allen Cowley led the APS in embracing physiological genomics in our meetings and publications. I believe that this initiative has improved our meetings and undoubtedly attracted new investigators who did not previously consider themselves to be physiologists.

Even after these initiatives were implemented, however, only about 17% of the APS membership attended Experimental Biology in 2000, compared to 22% of our members who attended the FASEB meeting in 1992. Why are we able to attract only a small percentage of our members to attend the Experimental Biology meeting? One possibility is that our members want a

meeting that more effectively bridges physiology with pathophysiology and translational research. Although physiologists are attracted to specialty meetings and a reductionist approach to research, many of us also value large interdisciplinary meetings where we can hear the latest research advances outside our specialty, particularly if the best science is presented and if the meeting offers a good opportunity for interactions among basic and clinical scientists. For example, some of the most successful meetings in the United States, such as the American Heart Association Scientific Sessions, the annual American Society of Nephrology meeting, and the Neurosciences meeting, can hardly be considered “specialty” meetings. These meetings all have grown very large and are apparently very appealing to physiologists as well as to clinicians. I believe that they are successful, in large part, because of the depth and breadth of science they offer, as well as the opportunity to merge basic and clinical sciences (i.e., they highlight “translational” research). It is interesting that the Experimental Biology meeting has been more attractive to our members when we meet with organizations such as ASPET. Not only has the total attendance of the meeting been higher when APS meets with ASPET, but the *percentage* of our members who attend is also greater. Many of our members apparently enjoy interdisciplinary meetings that offer translational research.

The Experimental Biology meeting provides a great opportunity 1) to develop “specialty” meetings in key areas that are attractive to physiologists, as well as those who do not traditionally call themselves physiologists, and 2) to develop a high-quality interdisciplinary meeting that allows physiologists to learn about the latest advances outside their specialty. As I will discuss later, the second goal may be even more important in the future as interdisciplinary approaches become essential in

conducting “translational research” and solving some of the major research problems in physiology and medicine.

How can we satisfy the person who wishes to attend a “generalist” meeting as well as the person who seeks to attend a “specialist” meeting? Various approaches have been tried, including a “top-down” approach in which the APS leadership and a central program committee decide which areas of cutting-edge science should be presented at Experimental Biology. I believe that a “grass roots” approach is a better way to achieve our goals because the best ideas come from the scientists who are working in these specific fields. No single person is knowledgeable in all of the major sub-specialty fields that are necessary to cover the breadth and depth of modern physiology, and even selecting a small group of outstanding physiologists often fails to provide the necessary depth of knowledge for developing a large program.

The “grass roots” approach that I favor is to further strengthen our traditional APS sections, as well as other groups, in emerging areas, such as physiological genomics, so that they can effectively develop their own meetings within the structure of Experimental Biology. If we do not do this, these groups will look elsewhere. The more people involved in programming, the more likely we will be able to satisfy the diverse interests of our APS constituents and to attract the best scientists to the meeting. However, just increasing the number of people involved in programming will not suffice. We must also provide adequate resources to the APS sections and to emerging interest groups and give them the responsibility of developing the highest quality meeting in their fields.

The fact that greater numbers of our members attend the Experimental Biology Meeting when we meet with ASPET and other FASEB societies also implies that we cannot overlook the importance of working closely with

these groups. Also, I don't think we can ignore the success of meetings that bridge basic and clinical research. Currently, Experimental Biology offers very little for our clinical colleagues or for those interested in translational research. There is no reason that Experimental Biology cannot be a leading forum for presenting highly specialized, cutting-edge physiology as well as pathophysiology and applications to clinical medicine.

### Strengthening the Sections

Some progress has been made in increasing the participation of APS sections and its members in the Experimental Biology program. In 1997, Allen Cowley convened a Blue Ribbon Panel to advise Council on how to proceed with modernization and streamlining of scientific programming for APS. I was privileged to serve on this Blue Ribbon Committee. At that time, many members of the Committee felt that programming activities of the APS sections were not very effective, and there was considerable sentiment for removing some of this responsibility from the sections. There was (and perhaps still is) considerable imbalance in the size of the 12 sections and the effectiveness of the leadership. In addition, some of the scientific interests of the APS do not seem to fit well in the existing sections.

At that time, I served as Chair of the Section Advisory Committee (SAC) and had to reluctantly agree that some of the APS sections were not taking their programming activities seriously. In fact, the sections' contributions to the program were usually developed by one or two of the leaders of each section. In talking with section leaders, it also became clear that they often did not put much effort into the program because they were not sure if their efforts would be fruitful (i.e., their suggestions might not be accepted by the Program Advisory Committee) and they were not given a clear responsibility. Finally, some of the best young scientists in our

fields did not seem to readily identify with any of the sections or, for that matter, with the APS.

One solution to the problem was obvious—the sections should be strengthened, especially those that were not doing a very good job, and more people should be given clear responsibility for the program. Therefore, joint meetings between SAC and Council were convened to discuss these and other strategic issues on a regular basis. In 1997, the Fall APS Council retreat was also attended by SAC members, and the main topic of discussion was how to improve the Experimental Biology meeting. After considerable debate and discussion, most of us felt that the best approach toward improving Experimental Biology was to strengthen the various sections and, if necessary, to create new sections or additional mechanisms for developing programs in special areas that were not adequately covered by the sections. Thus, the Section Programming Committees (SPCs) were created with the clear responsibility of planning approximately two-thirds of the Experimental Biology meeting with one-third being planned by the Joint Programming Committee (JPC), which also has sectional representation, as well as members appointed by the APS President and Council. Each of the SPCs is comprised of several members of the section who are assigned the task of developing programs for their individual sections. Mechanisms were also identified to take care of overlaps and to identify new cross-cutting areas that would be of interest to multiple sections. The net effect of this plan was to engage at least four to five times more physiologists in developing the Experimental Biology meeting than were previously involved. This seems to have worked well, although there is still room for improvement. In addition, arrangements were made for increased emphasis on emerging areas of physiology (e.g., physiological genomics). For

example, Physiology InFocus sessions at Experimental Biology have been used for several years to promote these new areas of research, and special APS conferences are being planned in physiological genomics and translational research.

Why have I spent so much space discussing what has already been done? I want to be certain that we do not regress to a “top down” approach to programming and that we make further efforts to strengthen the sections by providing additional resources for invited speakers and increased travel support for new investigators to attend the meeting. We have spent considerable APS resources on new initiatives in recent years, but none of these is more important than our main annual meeting.

Because the sections are the scientific backbone of APS, providing additional resources to strengthen them would also benefit many other activities of the society. Specifically, the sections should play a major role in strategic planning for the APS. Also, we should have continuous rather than sporadic strategic planning. A retreat every eight years (the last ones were in 1992 and 2000) is not adequate. Science is changing too rapidly, and I strongly believe (to paraphrase a quote by the great UCLA basketball coach John Wooden) that “failure to plan is planning to fail.” We should effectively and continuously use our meetings of the SAC and Council to focus on strategic issues rather than as a conduit for information exchange. The sections provide our best connection with the diverse research approaches used by physiologists working at all levels of the organization, and we should take full advantage of this resource.

### APS Initiative in Translational Research

The term “translational research” has been used by many of us without really fully understanding what it means. At a recent Council meeting in which we

were discussing new initiatives that might stimulate translational research in APS, Doug Eaton requested that we define translational research. As I thought about his question, I realized that this term can mean different things to different people, depending on one's perspective. For me *translational research refers to the transfer of knowledge gained from basic research to new and improved methods of treating or preventing disease, as well as the transfer of clinical insights to hypotheses that can be tested and validated in the basic science laboratory.*

Translational research is not unidirectional (not just from the bench to the bedside) because observations made in clinical studies often stimulate new ideas and new research approaches in basic sciences. This has been particularly true in my own recent research program, which has recently been aimed at understanding the basic physiological mechanism by which obesity causes renal injury and hypertension. My interest in this area was stimulated from discussions with the former chief of our Hypertension Division, Herbert Langford, a well-known clinician. Langford pointed out to me that most of his patients with hypertension were overweight and had physiological characteristics that were often very different from those observed in many of our experimental models of hypertension. It quickly became apparent to me that we knew very little about the basic physiological mechanisms by which weight gain alters cardiovascular and renal function or the impact of gene-environment interactions on obesity. This realization focused my attention on the need to develop animal models that more closely mimic the physiological changes observed in obese humans, as well as on the need to learn much more about areas of physiology in which I previously had little exposure. I also became aware of the need to utilize interdisciplinary approaches, drawing on expertise in several different areas of

physiology and medicine. This experience solidified my opinion that close collaboration with clinicians can be very helpful to the physiologists, as well to clinicians.

The importance of translational research has recently been recognized by many organizations, including the National Institutes of Health, the American Cancer Society, the Burroughs Wellcome Fund, the Howard Hughes Medical Institute, and the American Heart Association. It is clear that new approaches are needed not only in the way we conduct our research, but also the way we train basic scientists for the postgenomic era. For the discoveries that are being made in basic sciences to contribute to our understanding of human physiology and pathophysiology, we basic scientists must be able to effectively interact with clinicians, engineers, and other basic scientists.

As the Human Genome Project reached completion in the year 2000, an almost complete map of the human genetic code was generated. Initiatives are also underway to map the complete genetic codes of other species. The next challenge will be to identify the functions of the genes that have been mapped, the proteins for which they code, the functions of those proteins in the body, and finally the application of this knowledge to the treatment of human disease. All of this will necessitate interdisciplinary translational research and it will require physiologists who are broadly trained.

Advances in genomics that have increased our understanding of human disease have already occurred, particularly in diseases that depend on single gene mutations. In the field of blood pressure regulation, for example, researchers have discovered at least five gene mutations (all involving abnormalities of renal tubular sodium transport) that cause hypertension in humans, and at least eight mutations (again, all involving altered renal tubular trans-

port) that decrease blood pressure. Unfortunately, these mutations account for only a very small percentage of human hypertension. Few, if any, of the mutations or single nucleotide polymorphisms found in animal models of hypertension have proven to be important in causing human hypertension. Does this mean that genetic studies of hypertension in animals have been fruitless? Absolutely not! New knowledge has been generated that adds to the growing body of information available to physiologists. On the other hand, understanding human physiology and pathophysiology will require us to ultimately test our hypotheses in humans.

Also, we should not forget that environmental factors play a major role in human disease. The rapid rise in the past 10-15 years of obesity and associated cardiovascular and renal diseases, for example, cannot be attributed to gene mutations, even though genetic studies have been very important in helping us to better understand possible targets for therapy. It is important that we not be too single-minded in pursuing physiological genomics at the expense of ignoring other areas of physiology that are equally important.

Traditionally trained PhD physiologists usually do not engage in human research. However, translational research no longer requires that the principal investigator be a clinician. For example, important clinical research is now being conducted on the pathogenesis of human disease by working at the DNA level in stored samples. Physiologists can play a key role in translational research and serve as leaders of this effort, if they are willing to collaborate. The immense amount of information generated by the Human Genome Project will undoubtedly require collaborations between physiologists, biochemists, bioinformatics experts, computer scientist, engineers, and mathematicians.

In the postgenomic era of research, inter-disciplinary research will be nec-



essary if we are to make rapid progress. Some of the most interesting physiological research will take place at the boundaries of our discipline and will result from combing knowledge of various fields. The physiologist who is well trained in multiple areas of science and who is comfortable in interacting with clinicians, biochemists, engineers, and computer scientists will be uniquely positioned to facilitate these advances. I do not mean to imply that there is less need for specialists than for integrative physiologists. In some cases, concentrated work on a single mechanism (or even a single protein) is the best way to advance knowledge in a field. However, integrative physiologists working together with scientists from other disciplines, ranging from molecular genetics to clinical medicine, can advance fundamental knowledge in ways that cannot be attained without this collaboration.

I believe that the APS should commit resources to facilitating translational research and its dissemination in our meetings and publications and to the training of physiologists who can take advantage of the new opportunities that will occur in the postgenomic era. Planning for this initiative is already underway, and a preliminary report of the Translational Research Task Force has been published (2). The main goals of this initiative are to 1) to ensure that physiology reasserts itself as the discipline that links basic sciences and clinical medicine, and 2) to promote interdisciplinary research that rapidly translates advances in basic science to clinical research. Closely related objectives are to enhance the prestige of physiology departments in medical schools and to promote translational research as a viable career for physiologists. Many of the recommended actions will, by highlighting translational research, also improve APS meetings and publications. The recommendations of the task force are far reaching, but they are still preliminary and some prioritization is needed.

Some initiatives to promote translational research in APS are already underway. For example, the editors of APS journals have been asked by the Publications Committee, chaired by Dale Benos, to solicit manuscripts in the fields of translational physiology. The Publications Committee also plans to renew the "Physiology in Medicine" series that was once published in the *New England Journal of Medicine*. These initiatives are meant to insure that there is a two-way transfer of knowledge from basic physiology to medicine, as well as from medicine back to the bench. Efforts are also underway to develop APS conferences and workshops at Experimental Biology that bridge physiology with clinical medicine and help to overcome barriers to interdisciplinary research. This is a very ambitious initiative for APS, and further planning will be necessary before these goals can be met. The APS is in a unique position to provide leadership in promoting translational research, and physiologists are ideally suited to lead interdisciplinary research teams that focus on the physiology and pathophysiology of human diseases. However, we must act boldly, committing resources as well as our energy to have a major impact. I invite you, as members or non-members of APS, to give us your thoughts and help in achieving the goals of this initiative.

### **Increasing the Visibility of Physiology and APS**

One of my goals for the next year is to develop initiatives that increase the visibility of physiology in the eyes of the general public, funding agencies, and academic institutions, as well as to develop effective liaisons with other scientific societies. Although the APS now has over 10,000 members and is perhaps the most prestigious physiological society in the world, few people outside the field know what physiologists really do. In some of our most outstanding academic institutions, physiology departments have been merged

with other basic science departments, and the influence and prestige of physiology has declined.

Why do we have such a low visibility? One reason may be the tendency in recent years for physiologists to have a much narrower research focus and to withdraw from translational research. As we become more and more reductionist in our research, it becomes even more difficult to explain to the general public what we are doing or why it is significant. In fact, I am not sure that we always stop to consider what impact our research will have on our understanding of body function or human disease. Several years ago when I became Editor of the *American Journal of Physiology: Regulatory, Integrative and Comparative Physiology*, I suggested that the scientific impact of the journal could be enhanced by including a "Perspectives" section in the discussion of each manuscript. The purpose of "Perspectives" was to indicate the broad implications of the study and to even allow speculations on the importance of the work. I was surprised to learn that many authors resisted this opportunity and felt uncomfortable in "speculating" or even trying to explain the broad implications of the study. It seems that the narrower our research becomes the more likely we are to have difficulty explaining it to each other or to the public.

This difficulty is not inevitable, however, if we provide mechanisms to effectively bridge basic molecular research with integrative physiology and clinical medicine in our publications, meetings, and training programs for physiologists. We should also develop initiatives to increase the visibility of physiology with the general public. For example, one new initiative that came out of discussions in SAC was to develop a "Top Ten Advances in Physiology" that could be released to the news media and other public interest groups. An initiative that evolved from the 2000 Strategic Planning Retreat is to develop an effective public relations program to

promote APS, as well as the discipline of physiology. There are many advances made each year in multiple areas of physiology, but often these are not recognized as “physiology” research. In some cases, the advances are claimed by organizations that focus on specific diseases (e.g., cardiovascular disease) even though the discovery was made by a physiologist! Therefore, we need to make a greater effort to educate the public about the central role of physiology in understanding how the body functions in health and disease, and about important research advances that have been made by APS members.

We should also work to increase the visibility of physiology in academic institutions, especially in medical schools. With the rapid advances in molecular biology and genetics that have been embraced by physiologists in the past two decades, the role of physiologists as teachers and as valuable collaborators for clinical departments, in many instances, has gradually shrunk. In some medical schools, physiologists are not even teaching many parts of the medical physiology course. Instructors from clinical departments sometimes do most of the teaching because physiologists may not be trained well enough in organ physiology or in pathophysiology to teach the required subject material. In addition, basic physiologists often have little interaction with students beyond the first year of medical school or with clinical fellows and residents. I believe that the visibility of physiology in medical schools could be greatly enhanced if we simply made ourselves more valuable by teaching not only first-year medical students but also by helping to teach pathophysiology and working with residents and clinical fellows.

The APS could facilitate this effort by helping to develop high-quality, computer-assisted educational programs that can be used to improve the teaching of physiology and pathophysiology. The last time I looked at the “Archives of Teaching Resources” on the APS website, there were only a few “Case

Histories” in renal physiology with none in other areas such as cardiovascular, endocrine, neurophysiology, or gastrointestinal physiology. Likewise, there were only a few PowerPoint slides in the area of body fluids and acid base balance. The APS “Archives” obviously has room for great improvement, and we should move quickly to further develop this resource.

APS can also work to enhance the visibility of physiology on the review committees of various funding agencies. The National Institutes of Health, for instance, continually seeks experts to serve on study sections and often write to previous members of the study section for suggestions. Once you get in the system, your advice is sought. Therefore, those of us who have served on study sections should take the time to respond to this request seriously with suggestions to ensure that physiologists are well-represented on these committees. APS can also do this more systematically by requesting suggestions from the APS sections. If we want to be well-represented on review committees of funding agencies, such as NIH, NSF, and the American Heart Association, we must be much more proactive and provide suggestions for expert reviewers who represent the discipline of physiology.

Increasing APS visibility to the general public, to medical school administrators, and to funding agencies should be one of our top priorities. This should be coordinated through a Communications/Media Relations Office at APS, and we must work in concert with other organizations such as the ACDP. This will obviously require effort and resources, but I believe that the benefits warrant the effort.

There are many other areas that I have not discussed in detail. One of the most important of these is the education of future generations of physiologists, and especially the need to train more integrative physiologists, a topic that was beautifully articulated by Jim Schafer in his President’s message (6).

Several new initiatives in this area, as well as other important areas, have been considered in the APS 2000 strategic planning document (1a). I strongly believe that we must be ready to undergo rapid change whenever necessary and to take full advantage of emerging opportunities. The next few years will provide unparalleled opportunities for physiologists to lead the charge in translating the genome and in understanding human disease. I pledge to work hard with the membership, the sections, and Council to meet the challenges, and I invite you to send me your thoughts and suggestions. I am grateful for the opportunity to serve APS and look forward to working with you.

### Acknowledgements

I want to thank Arthur Guyton, the ultimate integrative physiologist, who has been a mentor and role model to me for the past 27 years. I also thank the many colleagues in physiology and medicine who have worked with me at the University of Mississippi Medical Center and have shaped my views on the importance of having good collaborators.

### References

1. Boron, W.F. “72nd President of APS.” *The Physiologist* 42: 65, 74-79, 1999.
- 1a. Boron, W.F. “The APS Strategic Plan-A Vision for the New Millennium.” *The Physiologist* 43:71-74, 2000.
2. “Council Meets in Scottsdale - Task Force Reports.” *The Physiologist* 44: 6, 2001.
3. Cowley, A.W. Jr. “70th president of APS.” *The Physiologist* 40: 49, 58-64, 1997.
4. DiBona, G.F. “73rd President of APS.” *The Physiologist* 43: 57, 66-70, 2000
5. Duling, B.R. “67th President of APS.” *The Physiologist* 37: 49, 51-55, 1994.
6. Schafer, J.A. “69th President of APS.” *The Physiologist* 39: 41, 45-55, 1996.



# 74th APS President

## APS Election Results

The American Physiological Society announces the results of the election of officers for 2001.

**Barbara A. Horwitz**, University of California, Davis, is the new President-Elect.

The two newly elected Councillors taking office on April 4,

2001 are **Kim E. Barrett**, University of California, San Diego, School of Medicine, and **Joseph R. Haywood**, University of Texas Health Science Center at San Antonio.

The Councillors will serve for three years. ❖

### President-Elect

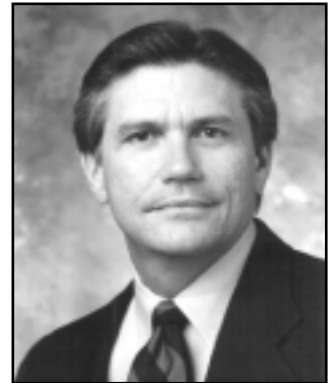


**Barbara A. Horwitz**

### Councillors



**Kim E. Barrett**



**Joseph R. Haywood**

## Gift Planning Opportunities

The American Physiological Society is pleased to invite the membership to consider including the APS in their gift giving plans. Over the last several years, the Society has received donations of land and securities, all of which have been used to launch the Society's various young investigator award programs.

Many options exist if you are interested in including the APS and its Endowment Fund in your financial or estate planning. Some options include:

☛ **Immediate Gifts:** Cash, gifts of appreciated securities, gifts of closely held stock, gifts of tangible personal

property, retirement assets, charitable lead trusts and gifts of real estate.

☛ **Life Income Gifts:** Gift annuities, deferred payment gift annuities, charitable remainder trusts, charitable remainder unitrusts, and charitable annuity trusts.

☛ **Gifts of Insurance:** Ownership of life insurance policies can be donated, or the APS can become the beneficiary of policies owned by others.

☛ **Designated Gifts:** Gifts given to honor or memorialize an individual or an organization and can include scholarships, programs, etc., which are

specified for support and named for individuals.

☛ **Gifts by Will:** Bequests of a percentage of estate, stated dollar amount or specific property or assets.

For more information on gift giving to the APS, please contact Martin Frank, Executive Director (Tel. 301-530-7118, Email: mfrank@aps.faseb.org), or Robert Price, Director of Finance (Tel. 301-530-7160, Email: rprice@aps.faseb.org).

# Membership

## New Regular Members

### \*transferred from student membership

- Karen M. Abberton**  
Univ. of Rochester
- Kayode Oke Adeniyi**  
Univ. of Papua New Guinea
- M. Safwan Badr**  
Harper Hospital, Detroit
- Aaron Barcowisky**  
Dartmouth College
- Carolyn Judith Barrett**  
Univ. of Auckland
- Vittorio Emanuele Bianchi**  
Univ. of Parma
- Jeffrey J. Bishop\***  
Biosite Diagnostics
- Stephen M Black\***  
Northwestern Univ.
- James Ernest Blevins**  
VA Puget Sound Health Care Systems
- Edward Michael Blumenthal**  
Univ. of Virginia
- Vernon Bond**  
Howard Univ.
- Richard Todd Born**  
Harvard Univ.
- Robert W. Brock\***  
Lawson Health Research Institute
- Zoe Louise Susan Brookes**  
Univ. of Alberta
- Emery Neal Brown**  
Massachusetts General Hospital
- Jennifer M. Burns\***  
Univ. of Alaska
- Hunter Clay Champion\***  
Johns Hopkins Univ.
- Eva R. Chin**  
Pfizer Global Research & Development
- Flavio Cocceani**  
Scuola Superiore S Anna, Pisa
- Catharine Anastasia Conley**  
NASA Ames Research Center
- Jian Cui**  
Presbyterian Hospital of Dallas
- Xun Cui**  
Jeonbug National Univ., Korea
- Angel L. De Blas**  
Univ. of Connecticut
- Serdar Demirgoren**  
Ege Univ., Turkey
- Durmus Deveci**  
Cumhuriyet Univ., Turkey
- Edward Michael Dzialowski**  
Univ. of North Texas
- Hashimul Ehsan**  
Kansas State Univ.
- Ella W. Englander**  
Univ. of Texas
- Joseph S. Evlichman**  
St. Lawrence Univ.
- Mohamed M.M. Fatah-Allah**  
Faculty of Veterinary Medicine, Egypt
- Michael Joseph Fay**  
Midwestern Univ.
- Joseph R. Fetcho**  
SUNY-Stony Brook
- Joseph Francis**  
Univ. of Iowa
- Gerald Duran Frank\***  
Vanderbilt Univ.
- Samuel W. French**  
Harbor Univ., California
- Anne Louise Friedlander**  
Stanford Univ.
- Hiroharu Funaya**  
Univ. of Toronto
- Pietro Renato Galassetti**  
Vanderbilt Univ.
- Hilde Kanli Galtung**  
Univ. of Oslo
- Alan Gelperin**  
Bell Labs Lucent, NJ
- Anthony Martin Gerdes**  
South Dakota Cardiovascular Res. Inst.
- Michael Paul Godard\***  
Univ. of Southern Maine
- Robert Wilfrid Grange**  
Virginia Tech
- Paul Gregorovic**  
Univ. of Melbourne
- Per-Olof John Hassalgren**  
Univ. of Cincinnati
- Gordon Stanley Howarth**  
Child Health Research Inst., Australia
- Sandra Kam Hunter**  
Univ. of Colorado
- Yuqing Huo**  
Univ. of Virginia
- Mitchel C. Jacobs**  
Northshore Univ. Hospital
- Ming-Yie Jan**  
Academia Sinica, Taipei
- Daoyun Ji**  
Baylor Univ.
- Lindsay Amelia Jones\***  
Univ. of Wales-Cardiff
- Luis A. Juncos**  
Mayo Clinic
- Yu-Ming Kang**  
Univ. of Iowa
- Susanne Keiding**  
Aarhus Univ.
- Paul Jeffrey Kemp**  
Univ. of Leeds
- Ronald E. Kettner**  
Northwestern Univ.
- Shann Masterson Kim**  
Univ. of Illinois, Chicago
- Charles James Kirkpatrick**  
Johannes Gutenberg Univ.
- Joseph A Kitterman**  
Univ. of California, San Francisco
- Charles James Kirkpatrick**  
Johannes Gutenberg Univ.
- Julie M. Klotzbach**  
Ross Univ.
- Timothy Jon Koh**  
Univ. of Illinois, Chicago
- Pascale Hammond Lane**  
Univ. of Nebraska
- Toste Lanne**  
Linkoping Univ., Sweden
- Rachel E. Laudadio\***  
Harvard Univ.
- Giuseppe Liistro**  
Cliniques Univ., Belgium
- Xiaotuan Liu**  
Pennington Biomedical Research Center
- Pamela G. Lloyd\***  
Univ. of Missouri-Columbia
- William Joseph Martin**  
Merck and Co., Inc., NJ
- Petr Mikhailovich Masliukov**  
Medical State Academy, Russia
- Janice V. Meck**  
NASA
- Jo-Ann Elizabeth Mellish**  
Texas A&M Univ.
- Julian Estrella Mesina**  
Lake Erie College
- Victor Mor-Avi**  
Univ. of Chicago
- Jeff Maurice Morrissette**  
Hopkins Marine Station-Stanford Univ.
- Benno Maurus Nigg**  
Univ. of Calgary
- Ivan M. Olfert\***  
Univ. of California, San Diego

## Membership

**Donald Michael O'Malley**

Northwestern Univ.

**Chris Peers**

Univ. of Leeds

**Sandra Jane Peters**

Brock Univ.

**David Robert Plant**

Univ. of Melbourne

**Kenneth S. Polonsky**

Washington Univ.

**Barry M. Prior**

Univ. of Missouri

**Paul Ebrahim Rajab**

Pfizer Global Research and Develop.

**Tuomo Rankinen**

Pennington Biomedical Research Ctr.

**E. Reuveny**

Weizmann Institute of Science

**Thomas Henry Reynolds\***

Univ. of Virginia

**Ranna Adina Rozenfeld**

Northwestern Univ.

**Morten Skrede Ryg**

Glittreklinkkn, Norway

**Todd Samelman\***

Univ. of Florida

**Darleen Ann Sandoval**

Vanderbilt Univ.

**Hans Peter Sauerwein**

Academic Medical Center, Netherlands

**James Alan Schwane**

Univ. of Texas, Tyler

**Margaret Aelene Schwarz**

Children's Hospital Los Angeles

**Gregory C. Shearer\***

Univ. of California, Davis

**Andrew William Sheel\***

Univ. of British Columbia

**Melinda Sheffield-Moore\***

Univ. of Texas

**Michael H.I. Shiu\***

Amgen, Inc.

**Puspha Sinnayah**

Univ. of Iowa

**Joseph Anthony Sisneros**

Cornell Univ.

**Mark D Slivkoff\***

Univ. of Arizona

**Veadislav Snitsarev**

Univ. of Iowa

**Hayet Soualmia**

Faculte Medicine Pitie Salpetriere

**Espen Spangenburg\***

Univ. of Missouri

**Robert S. Stephenson**

Wayne State Univ.

**Craig W. Stevens**

Oklahoma State Univ.

**Zhengchang Su**

Univ. of Alabama, Birmingham

**Jennifer Case Sullivan**

Medical College of Georgia

**Sonya R. Summerour Clemmons**

VitaGen Inc., La Jolla

**Wei Sun**

Univ. of Iowa

**Zbigniew Tabarowski**

Jagiellonian Univ., Poland

**Beth Marla Tannenbaum\***

Carleton Univ.

**Yang Teng**

Harvard Univ.

**Salome Abraham Thomas**

Letourneau Univ., Texas

**Jer-Chia Tsai**

Kaohsiung Medical Univ., Taiwan

**David Anthony Tulis\***

Baylor Univ.

**MaryAnn Vitoria Volpe**

New England Medical Center

**Barbara A. Walsh**

Williams College

**Yanggan Wang**

Emory Univ.

**Mark Thomas Worthington**

Univ. of Virginia

**Xiaohong Xia**

Univ. of Nebraska

**Bin Xu**

Univ. of Michigan

**Wen Xie Xu**

Yanbian Univ.

**Stephen Xiaodong Yang**

Columbia Univ.

**Chung-Ho Yeum**

Chonnam Natl. Univ. Hosp., S. Korea

**Jun-Ming Zhang**

Univ. of Arkansas

**Zhijia Zhang**

Univ. of Iowa

## New Student Members

**Jon Andresen**

Univ. of Iowa

**Roberto Araya**

Pontificia Univ. Catolica De Chile

**Timothy Wayne Bailey**

Oregon Health Sciences Univ.

**Jerome William Breslin**

Univ. of Medicine and Dentistry of NJ

**Adam Michael Bromberg**

Univ. Central Florida

**Kenia Cardoso Bicego-Nahas**

Univ. de Sao Paulo

**Matthew Bernard Brearley**

Southern Cross Univ.

**Yavuz Cakir**

Univ. of Tennessee

**Kristin Leigh Campbell**

Univ. of British Columbia

**Ann A. Carbone**

Florida Atlantic Univ.

**Rebecca W. Carter**

Univ. of New Mexico

**Juan Carlos Casar**

Catholic Univ. of Chile

**Qi Che**

Univ. of Nebraska

**Richard Thomas Clements**

Albany Medical College

**Cynthia Ivette Colon-Rivera**

Univ. of Illinois, Urbana-Champaign

**Edward Robert Donovan**

Univ. of Colorado, Boulder

**Nikki Andrea Drake**

Florida Atlantic Univ.

**Matt Michael Eaton**

Univ. of California, Davis

**Sterling Xavier Egan**

North Arizona Univ.

**Courtney Christine Fleck**

Univ. of Wisconsin, Madison

**Craig Andrew Goodman**

Victoria Univ.

## Membership

**Timothy Paul Hagerty**

Univ. of Texas, San Antonio

**Brooke Chance Harrison**

Univ. of Colorado, Boulder

**Angela Rose Hess**

Univ. of Iowa

**Zhaolin Hua**

Vanderbilt Univ.

**Marcy D. Hubert**

Finch Univ.

**Vandana Iyer**

Albany Medical College

**Cristina Jaen**

Univ. of South Florida

**Amanda Lovell Kesner**

Univ. of California, Los Angeles

**Lacy Lea Kolo**

St. Louis Univ.

**Jennifer Ann Krivos**

Florida Atlantic Univ.

**James Arthur Kuzman**

Univ. of South Dakota

**Jane Marie LaBreche**

Univ. of British Columbia

**Vanita Lalwani**

Florida Atlantic Univ.

**Seung-Hye Lee**

Seoul National Univ.

**Jason Donald Legassie**

Univ. of Central Florida

**Polaues Ruth Angelina Lezame**

Cinvestau, Mexico

**Daniel Limon**

Faculty Science of Chemistry, Mexico

**Melissa Mistelle Lowder**

Florida Atlantic Univ.

**Chastity Nicole McRae**

Univ. of Alabama, Birmingham

**Kafi N. Meadows**

Albany Medical College

**Megan Suzanne Monroe**

Florida Atlantic Univ.

**Beth Andrienne Nordby**

Temple Univ.

**Saoirse Elizabeth O'Sullivan**

Trinity College, Dublin

**Diane Leo Olsen**

Florida Atlantic Univ.

**Joseph Christopher Piccione**

SUNY, Stony Brook

**Donald Charles Ridgeway**

Florida Atlantic Univ.

**Laura G. Sanchez-Lozada**

Inst. Natl. De Cariologia Ignacio Chavez

**Kwon Min Seong**

Kwanju Inst. of Science and Technology

**Catherynne Laurayne Morgan**

Univ. of Arizona

**Cristhiaan David Ochoa**

Univ. Pontificia Bolivariana

**Melissa Dewan Shah**

Albany Medical College

**Rosalimo Valeria Silverman-Gavrila**

York Univ.

**Lorelei Bianca Silverman-Gavrila**

York Univ.

**Joseph Lewis Simone**

Florida Atlantic Univ.

**Robert Chapman Sprague**

Univ. of Texas, Austin

**Brent Steadman**

Medical College of Georgia

**Alexandre Alarcoll Steiner**

Univ. of Sao Paulo

**Season R. Thomson**

Pennsylvania State Univ.

**Sarah Marie Tobias**

Florida Atlantic Univ.

**David Keith Turnbull**

Sheffield Univ.

**Rebekah Leigh Vinson**

Univ. Texas

**Edward Chin Yu Wang**

Univ. of Pittsburgh

**Matthew Scott Whitacre**

Univ. of Idaho

**Dewight Williams**

Univ. of Colorado, Boulder

**Donghoon Yoon**

Univ. Texas

**Fang Zhang**

Univ. of Utah

**Jun Zhou**

Emory Univ.

**Robyn Wendy Ziemer**

Florida Atlantic Univ.

### New Affiliate Members

**Jin-Chull Kim**

Seoul Bio-Information Center

**Brian Thomas David**

Univ. of Arizona

**Christine Marie Iltis**

Salt Lake Community College

**Greg Ruskin**

Northshore Univ. Hosp.

**Richard M. Weil**

Roosevelt Hospital, NY

### Recently Deceased Members

**Lynn M. Baxendale-Cox**

Baltimore, MD

**Ralph W. Brauer**

Wilmington, NC

**David S. Bruce**

Wheaton, IL

**Fred Elmadjian**

Melbourne Beach, FL

**Stephen J. Lebric**

Thornville, OH

**Paul A. Mole**

Davis, CA

**Robert Blake Reeves**

Buffalo, NY

**James J. Smith**

Milwaukee, WI

# Membership Statistics

<b>Total Membership</b>	10,623	<b>Distribution Primary by Section Affiliation</b>	<b>APS Membership in the Americas</b>	
<b>Distribution by Employment</b>		(7,800 respondents)	US	7,096
(7,416 respondents)			Canada	478
	<i>No.</i>	<i>%</i>	Brazil	50
Physiology depts.	2,455	33.1	Mexico	15
Other preclinical depts.	596	8	Argentina	10
Clinical	1,593	21.5	Chile	4
Administration	43	0.6	Jamaica	3
Hospitals and clinics	306	4.1	British West Indies	3
Veterinary schools	150	2.0	Peru	2
Dental schools	37	0.5	Venezuela	1
Public health and grad. schools	131	1.7	Grenada	1
College or university	1,277	17.2	Costa Rica	1
Commercial companies	187	2.5	Honduras	1
Government	345	4.7	Dominican Republic	1
Institutes and foundations	202	2.7	Trinidad	1
Private practice	33	0.4		
Other, emeritus or inactive	61	0.8		
		<b>Distribution by Group Affiliation</b>	<b>US States With More Than 100 Members</b>	
<b>Distribution by Racial Background and Heritage</b>		(4,701 respondents)	(50 states plus District of Columbia, Puerto Rico, Guam, and the Virgin Islands)	
(optional personal data)			California	779
<i>Total respondents</i>		<i>%</i>	New York	542
American Indian or Alaskan	16	29.7	Texas	455
Asian or Pacific Islander	600	26.7	Pennsylvania	396
Black	71	16.0	Maryland	332
White	4,983	18.4	Illinois	309
Hispanic	113	8.9	Massachusetts	332
		<b>Distribution by Primary Specialty</b>	Ohio	278
<b>Distribution by Earned Degree</b>		(7,394 respondents)	Michigan	237
(6,617 respondents — includes 1,217 individuals with multiple doctorate degrees)			North Carolina	180
PhD	4,777	Anesthesia	Florida	269
MD	2,656	Anatomy and embryology	New Jersey	157
DVM	192	Biochemistry	Missouri	180
ScD	112	Biophysics	Virginia	152
DDS	33	Biomedical engineering	Connecticut	130
EDD	23	Blood	Wisconsin	169
Cand. Med.	41	Cardiovascular	Georgia	157
		Cellular and tissue	Tennessee	133
<b>Distribution by Sex</b>		Comparative physiology	Louisiana	122
(optional personal data)		Electrolytes and water balance	Indiana	128
Female	1,360	Endocrines	Minnesota	135
Male	6,164	Energy metabolism and temperature	Washington	120
		Environment	Alabama	116
<b>Distribution by Age</b>		Gastrointestinal	Iowa	108
(optional personal data)		General physiology	Colorado	131
70+	1,329	Gerontology	Arizona	107
60-69	1,216	Immunology		
50-59	2,060	Liver and bile	<b>APS Membership Outside the Americas</b>	
40-49	1,960	Lipids and steroids	(countries with five or more members)	
30-39	1,163	Minerals, bone, and teeth	Japan	180
20-29	506	Muscle and exercise	Germany	103
		Neurosciences	United Kingdom	82
<b>Principal Type of Work</b>		Nutrition and food	France	74
(7,893 respondents)		Pharmacology	South Korea	42
	<i>%</i>	Renal	Australia	53
Research	77.9	Reproduction	Italy	43
Teaching	11.0	Respiration	Denmark	39
Clinical	6.7	Other	Switzerland	32
Administration	4.5			

## Membership Statistics

Netherlands	39	<i>Croatia, Cyprus, Egypt, Iceland, Indonesia,</i>	
Spain	26	<i>Iran, Luxembourg, Malaysia, Pakistan,</i>	
Belgium	25	<i>Philippines, Portugal, Qatar, Republic of</i>	
Sweden	26	<i>Macedonia, Romania, Saudi Arabia,</i>	
Taiwan	24	<i>Singapore, Slovak Republic, Slovakia,</i>	
Israel	22	<i>Slovenia, Tanzania, Thailand, Ukraine,</i>	
Norway	16	<i>United Arab Emirates, Yugoslavia,</i>	
New Zealand	15		
Hong Kong	9	<b>Canadian Provinces With Five or More</b>	
Austria	9	<b>Members</b>	
India	9	Ontario	199
Greece	9	Quebec	88
Poland	7	Alberta	66
Republic of South Africa	7	British Columbia	44
Turkey	7	Manitoba	22
Ireland	7	Nova Scotia	12
Hungary	6	Newfoundland	12
		Saskatchewan	7

*Other Countries Represented: Bangladesh, Belarus, Bosnia and Hercegovia, Bulgaria,*

**Sunday, April 1, 7:30-9 a.m.  
The Peabody Hotel, Plaza Ballroom B**

Enjoy breakfast while hearing our speaker's discussion about networking with scientists in your field, taking advantage of connections to further your career, and how experienced mentors can provide valuable information and advice on making the most of your graduate, postdoctoral, or new faculty/industrial position.

**Attend the APS Women in  
Physiology Committee's  
EB 2001  
Mentoring Breakfast**

For more information see <http://www.the-aps.org/education/mentoringprogram/ebactivities.htm>



## Introducing Robert G. Carroll

On January 1, 2001, **Robert G. Carroll** succeeded **Barbara A. Goodman** as Chair of the APS Education Committee. As Chair, Carroll will also serve ex officio on the APS Council. He is active in the APS Teaching Section and held positions of Councilor and, most recently, Chair of the section. While Chair of the Teaching Section, Carroll worked with APS President **L. Gabriel Navar** and Association of Chairs of Departments of Physiology (ACDP) President **Mordecai Blaustein** to compile the Medical Physiology Learning Objectives, (<http://www.the-aps.org/education/MedPhysObj/med-cor.htm>) a joint project of the APS and the ACDP.

Carroll is a Professor in the Department of Physiology at the Brody School of Medicine-East Carolina University. He graduated from the University of Notre Dame in 1976, and received his PhD from the University of Medicine and Dentistry of New Jersey-Newark in 1981. His research, directed by David Opdyke, examined the role of catecholamines and angiotensin II in blood pressure regulation in sharks. He received an individual NRSA, co-sponsored by Thomas Lohmeier and Arthur Guyton, to continue work on blood pressure regulation at the University of Mississippi Medical Center. In 1984, he joined the Physiology Department at East Carolina University, where he also holds adjunct appointments in Emergency Medicine and in the Cardiovascular Center.

His research centers on trauma and resuscitation. Currently, his laboratory is studying the altered body temperature regulation that accompanies severe hemorrhage. Interesting findings include a downward shift in the body temperature "set point" in the hours after hemorrhage. This set point alteration causes rats, who are already



**Robert G. Carroll**

hypothermic, to use behavioral mechanisms to further decrease their body core temperature in the post-hemorrhage period.

In addition to bench research, Rob has a strong interest in teaching. He serves on the International Union of Physiological Sciences (IUPS) Commission on Teaching Physiology and has participated in IUPS-sponsored teaching workshops in Finland, Scotland, Russia, Pakistan, and South Africa. He is an Associate Editor of *Advances in Physiology Education*, and has 10 publications on teaching and learning. He is secretary for the International Association of Medical Science Educators and a regular participant in meetings of HAPS, the Human Anatomy and Physiology Society.

The Education Committee is charged with advancing physiology as a discipline and serving the educational needs of APS members. The Committee, which recently expanded to 12 members, coordinates activities with Marsha Matyas and the Education Office at the APS headquarters to accomplish this charge.

The continuing health of the APS requires that the Society serves the needs of its members. Members' educa-

tional needs include aspects of continuing professional (research) education and improvement of APS members' teaching skills. The Education Committee is particularly committed to the development and expansion of the archive of teaching resources, incorporating video, slide, clinical correlation, test banks, and simulation options for faculty to review and, if appropriate, adopt. These activities should be coordinated with the IUPS, and other professional societies, to increase their impact.

Separate from the teaching archive, the Education Committee seeks to develop resources for physiology course directors. In an era of continuing curricular change, course directors must understand the significance of the curriculum options and learn how to effectively champion the continuing role of physiology as a core component of pre-clinical education.

The continuing health of the discipline of physiology requires the development of a scientifically literate public. The Education Committee and APS Education Office support outreach activities, particularly to K-12 and to under-represented groups, that create a public that understands (and supports) science. Physiology, as the essential human life science, should lead in this effort. This activity is particularly important in schools receiving a significant portion of "state" funds. A closely related activity involves promoting research opportunities in both the pre-college and the college/university areas.

These activities require significant participation by the APS membership. We look forward to working with you on these and other topics in the upcoming years. Consider this your invitation, and contact me or any member of the Committee (listed on the APS web site) if you would like to join our efforts. ❖

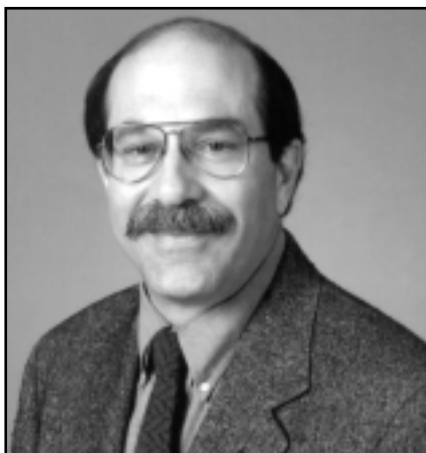


## Introducing John N. Stallone

On January 1, 2001, **John N. Stallone** succeeded **C. Terrance Hawk** as Chair of the APS Animal Care and Experimentation Committee. Stallone has served on this Committee for three years before becoming Chair and also served as liaison to the APS Education Committee. As Chair of the Animal Care and Experimentation Committee, he will also be an ex officio member of the APS Public Affairs Committee.

Stallone has been an Associate Professor in the Department of Veterinary Physiology and Pharmacology at the Texas A&M University College of Veterinary Medicine since 1998. Prior to that, he was an Assistant and then Associate Professor of Physiology at Northeastern Ohio Universities College of Medicine for 10 years. While at Northeastern Ohio, Stallone served on and then chaired the Institutional Animal Care and Use Committee (IACUC); he currently serves on the University Laboratory Animal Care Committee at Texas A&M. Stallone received his PhD in Physiology from the University of Arizona College of Medicine in 1984 under the direction of Eldon J. Braun and William H. Dantzer. He then completed a four-year postdoctoral research fellowship at the University of Tennessee Health Sciences Center in Memphis, working with Hiroko Nishimura and then with Leonard Share.

Stallone's primary research focus has been on the humoral regulation of renal and vascular function, particularly by



**John N. Stallone**

the posterior pituitary hormone vasopressin. In recent years, his research has focused on the acute (nongenomic) and long-term (genomic) effects of the gonadal steroid hormones in the regulation of endothelial and vascular smooth muscle function. Recent exciting findings from the laboratory relate to the importance of estrogen and testosterone as regulators of endothelial nitric oxide and prostanoid pathways and the resulting influence of these sex steroids on the maintenance of vascular tone by vasopressin and other vasoconstrictor hormones.

The APS Animal Care and Experimentation Committee is charged with overseeing all matters and policies related to the procurement, use, and care of animals for research and teaching and activities involving public or private agencies concerned with such

matters and advising the Council of actions to be taken or recommended. A particularly important aspect of these duties is keeping abreast of legislation as well as the activities of other groups involved with animal care and experimentation and keeping Council apprised of changes by means of regular reports. Other duties of the Committee include keeping the *Guiding Principles of the Care and Use of Animals* and the *Sourcebook for the Use of Animals in Physiological Research and Teaching* up-to-date, acting as arbiter for the Publications Committee relative to publication of papers involving questionable experimental procedures and care of animals, and keeping abreast of new developments in animal models for student teaching and alternatives for animal use in research and making recommendations to Council concerning these matters.

The next several years promise to be very challenging for the Committee, not only because of the upcoming regulation of rats, mice, and birds by the USDA, but also because of the proposed redefinition and regulation of pain and distress in research animals. Nevertheless, Stallone looks forward to the opportunity to serve the members of APS and to assist in the development of APS policies to deal with these challenges to the important use of animals in biomedical research and teaching.

## Advertise your job vacancy to over 10,000 members and subscribers!

Ads are accepted for either positions available or positions wanted under all categories. The charge for this listing is only \$75. In addition, all ads are posted on the APS Career Opportunity Web page immediately upon receipt and remain on there until the deadline has past. If you would like to have your ad listed in *The Physiologist* or on the APS Career Opportunities Web

page, the following items are needed: a copy of the ad, the name of a contact person, and either a purchase order number, credit card number (with expiration date and name of cardholder), or billing address. Send the information to Melinda Lowy (e-mail: [mlowy@aps.faseb.org](mailto:mlowy@aps.faseb.org); phone: 301-530-7165; fax: 301-571-8305).

### NIH Reconsiders Grant Review Procedures

The NIH has been asked to consider the practical impact of two initiatives intended to reduce the time and paperwork involved in submitting and reviewing grants. In the near term, however, only minor changes in modular grants submissions and “streamlined” grant review are expected.

Peer review panels want more budget information on the modular grant applications, according to discussions that took place at two January advisory group meetings. Responding to these concerns at the January 22-23 Center for Scientific Review (CSR) Advisory Committee meeting, Acting NIH Director Ruth Kirschstein defended the modular grant concept. Nevertheless, she acknowledged that it might need “some fine-tuning around the edges” and promised to ask the Advisory Committee to the NIH Director to give the concept further consideration. Speaking the following week at the January 29-30 joint meeting of peer review and regulatory burden oversight groups, NIH Deputy Director for Extramural Research Wendy Baldwin confirmed that the only change for now would be a modification in the modular grant application.

The modular grant approach was announced in December 1998 and was first put into place for applications submitted after June 1, 1999. Modular grant applications were intended to reduce the paperwork burden of submitting a grant and to expedite the approval

process. Investigators were allowed to request funds in modules of \$25,000 up to a maximum of \$250,000 by submitting an abbreviated application form. The purpose was to enable peer review groups to focus on the innovativeness and potential scientific impact of the proposal rather than the specifics of its budget.

However, study section members have since complained that the abbreviated modular grant application form fails to provide the information they need to assess proposals. Reviewers want more information about other sources of support provided to applicants’ labs.

Baldwin told the joint meeting of the Peer Review and Regulatory Burden Oversight Groups that NIH plans to modify the modular grant application by asking that information about ongoing and recently completed projects be appended to the two-page biographical sketch, rather than being incorporated into it. More far-reaching changes will not be considered until the June meeting of the Advisory Committee to the Director, Kirschstein told the same group.

Baldwin underscored her intention to give the modular grant concept additional time. Although the modular grant procedure took effect in June 1999, only about a year’s worth of such grants have gone through the submission and review process. “We want to evaluate the mechanism” of modular grants,

Baldwin said, “not the process of people learning about the mechanism, which is what we are in the midst of now.”

The earlier meeting of the CSR Advisory Committee was also a forum for concerns about “streamlining” grant applications, a process formerly referred to as triage. Streamlining was intended to reduce the amount of time study sections spend on grants considered least likely to be funded. Concerns raised included the differences in practices among study; the lack of feedback to applicants whose grants are streamlined; and whether novel ideas fail to receive appropriate consideration because they are the vulnerable to streamlining. CSR Director Ellie Ehrenfeld said that she plans to have some study sections try out ways to make certain that streamlined grants receive appropriate attention. Elements suggested included making sure that study sessions at least have brief discussions of streamlined applications and asking the prime reviewers to provide more informative comments. Reviewers may be asked to provide an explanation if their assessments of the application are markedly different. In addition, Scientific Review Administrators will be asked to put more information in the summary statement that goes back to the applicant about why the grant was given only a streamlined review. ♦

### APS Sustaining Associate Members

*The Society gratefully acknowledges the contributions received from Sustaining Members in support of the Society’s goals and objectives.*

Abbott Laboratories

ADInstruments

American Medical Association

Astra Arcus USA, Inc.

Axon Instruments, Inc.

Berlex Biosciences

Gould, Inc.

The Gatorade Company

The Grass Foundation

Harvard Apparatus

Janssen Research Foundation

Eli Lilly and Company

The Mack Printing Group

Merck and Company, Inc.

Nycomed, Inc.

Pfizer, Inc.

Pharmacia and Upjohn, Inc.

Procter & Gamble Company

Rhone-Poulenc Rorer

W. B. Saunders Company

Schering-Plough Research Institute

G. D. Searle and Company

SmithKline Beecham Pharmaceuticals



### FASEB Recommends \$23.6 Billion for NIH

The Federation of American Societies for Experimental Biology (FASEB) has recommended that the NIH be provided with \$23.7 billion in FY 2002. This would keep the nation's premier public source of biomedical research funding on a five-year path to doubling its budget. The NIH's FY 2001 appropriation is \$20.313 billion.

The NIH recommendation was the centerpiece of FASEB's annual funding recommendations to Congress. A committee of nearly 40 scientists representing FASEB's member societies developed the recommendations at a consensus conference late last year. Their report, which was entitled *Federal Funding for Biomedical and Related Life Sciences Research, FY 2002*, was released on January 24. In developing their recommendations, the group reviewed life sciences research portfolios at the NIH, National Science Foundation (NSF), Department of Veterans Affairs, National Aeronautics and Space Administration, and other agencies.

The FASEB consensus conference recommended a 15 percent increase for the NSF to bring its budget to \$5.1 billion. The conferees also recommended a \$44 million increase in VA medical research and a \$50 million increase for investigator-initiated life sciences research within NASA's newly created Biology Research Enterprise.

The conferees recommended "an increase in the budget directed towards supporting investigator-initiated grants, so as to fund more high-quality proposals." At the same time, FASEB recommended that the NIH "implement new and strengthen existing opportunities for funding of new investigators." It also recommended "a substantial increase in the base salaries of NRSA-funded post-doctoral fellows and benefits comparable to those received by permanent employees" because "the low level of compensation for post-doctoral fellows constitutes a crisis in biomedical research as we are not able to attract the best and brightest young minds into careers in life-sciences research."

FASEB further recommended that adjustments in research overhead reimbursements be considered as a solution to the "growing administrative costs associated with increased regulation." Regulations covering topics ranging from human subjects protection to animal care hazardous and from waste disposal to cost accounting standards and the responsible conduct of research "continue to proliferate, along with the attendant cost and complexity of complying with them," the report said. "It has also become increasingly apparent that new regulations are being promulgated with little, if any, attention to their costs or any analysis of their benefit." FASEB suggested that regulatory compliance costs should be fully funded by the sponsoring agency and recommended that there be a new, uncapped, category of indirect costs, dedicated to compliance activities. This would "require federal agencies to shoulder the compliance costs associated with new regulations and assess the projected benefits and costs of newly proposed regulations." ♦

### Deadlines! Deadlines!

The APS sponsored awards are plentiful, but in order to be considered, don't forget to submit the application information before the deadline!

#### Award

John F. Perkins, Jr., Memorial Fellowships  
William T. Porter Fellowship Award  
Research Career Enhancement Awards  
Teaching Career Enhancement Awards  
Shih-Chun Wang Young Investigator Award  
Arthur C. Guyton Awards in Integrative Physiology  
Giles F. Filley Memorial Awards for Excellence in  
Respiratory Physiology and Medicine  
Lazaro J. Mandel Young Investigator Award  
Procter & Gamble Professional Opportunity Awards  
Caroline tum Suden/Francis A. Hellebrandt  
Professional Opportunity Awards

#### Next Deadline

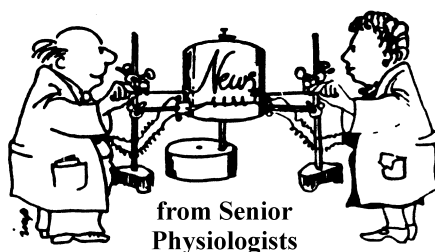
May 15  
July 15  
October 15  
October 15  
November 1  
November 1  
November 1  
November 1  
November 6  
November 6

## News from Senior Physiologists

### Letter to Michael Bárány

**Henry Brown** writes: “I was very pleased to receive your greeting on my eightieth birthday and to be asked to write something for *The Physiologist*. The most impressive thing to me in my career has been the incredible generosity of the American people in giving both for public and private funding of my education and research. Almost as impressive was the observation that my experience was far from unique. In my own case, starting with World War II, the Navy sent me to medical school, paying for my last two years. The Navy then gave me wonderful opportunities while in service including a stint with the Marines, senior medical officer on a carrier [heady stuff for a lieutenant (jg)], then a time with Commander Clive McCay, Professor of Nutrition at Cornell. (known for showing that not overeating increased longevity as well as decreasing incidence of chronic disease) who was then at the Nutrition Facility of the Naval Medical Research Institute at Bethesda. During the Korean War Era, I was called back and served in the Metabolic Research Unit of the Oakland Naval Hospital. The GI Bill started me on my surgical training at the University of Pennsylvania. Following I had a Runyon Cancer Fellowship in England at Cambridge with Fred Sanger sequencing pig and sheep insulin with a then-revolutionary methodology. Then there were 10 years at the University of Wisconsin in surgery with a true gentleman, Professor Erwin Schmidt, also both a fine scholar and a skilled surgeon. He was one of the founding members of The American Board of Surgery in about 1937. While at Wisconsin I received fellowship and NIH, and other private and public funding for my research on protein metabolism and metabolic derangements in liver failure and hepatic coma.

“I remained at Wisconsin until Dr. Schmidt’s death when I came to Boston to work with Dr. Bill McDermott on problems of liver metabolism in the



Harvard Surgical Unit at Boston City Hospital. At the time we were treating a large population with alcohol related cirrhosis and pancreatitis. This research done on the wards and in the Sears Surgical Research Laboratory of Boston City Hospital, too, was possible only because of large and generous NIH public funding supplemented by private funding.

“I came on board as a member of the American Physiological Society relatively late in my career at the age of 47 through the kindness and good offices of Professors Charles and Mary Elizabeth Tidball then at George Washington University. Membership in the Society has been one of the very nice things that has happened to me in academia and much appreciated since I was an outsider in the Department of Surgery. For the past two years I have been honored to be Chair of the Interest in History Group of the Society.

“I continue to be in the Division of Plastic Surgery at the Brigham and Women’s Hospital with writing and walking about occupying much of my time, even though I see an occasional patient, take part in rounds, and am a member of the Wound Healing Laboratory. For several years until this year I taught anatomy to the Harvard freshmen medical students.

“One of the puzzles of my surgical career has been the unpredictability of motor and sensory deficits following neck dissections for head and neck cancer. After several years of studying and pondering, in 1988 I published in the *Annals of Surgery* my results from clinical material as well as from the anatomy laboratory but felt results still were not definitive. So, that year I spent part

of a sabbatical to continue study of this problem at the University of Buenos Aires with Professor Luciano Poitevin who had done very good work in this area and who was both in that Anatomy Department and Chair of the Department of Orthopedics. I concluded that year at the University of Paris Anatomy Institute with Professor Genvieve Hidden who at the time was Chair of Anatomy in addition to being a respected surgeon. Since then my patient wife, Julie, and I have returned to Paris for two to three weeks twice yearly to continue that study. It is a bit taxing for her to leave our 12 grandchildren and one great grandchild, all of whom with our five children are the light of our lives. The French, nevertheless, have been both very generous and cordial in helping me. After small publications and oral presentations at the Societe Anatomique de Paris, in April of 2000 I was finally able to put it all together to publish a more definitive account in the *Proceedings of the Society for Experimental Biology and Medicine*: “The Anatomy and Blood Supply of the Lower Four Cranial and Cervical Nerves; Relevance to Surgical Neck Dissection.”

“Anyway, my health has remained relatively good so as to be able still to donate blood a couple of times a year and to jog very geriatrically every morning three to four miles along the beautiful Charles River a bit before 4:00 am or 5:00 am depending on what days are for rounds and what days are for laboratory meetings.

“Well, this has been quite an ego trip, but unfortunately I am told that, as one reaches one’s dotage, this even occurs more commonly. I send my best wishes to you and all of my colleagues in this wonderful American Physiological Society.”

### Letter to Eugene Renkin

**Howard Bern** writes: “Please excuse the almost year-long delay in this reply



## News From Senior Physiologists

to your kind greeting and request of last year (2000), my 80th year. I have had some health problems but seem to have rebounded well enough. I “retired” at age 70, but for the last decade I have served Berkeley and my department pro bono as a member of an Academic Senate committee, in the supervision of Master’s and undergraduate research students, serving on doctoral committees, sponsoring postdoctorals, participating in seminar courses, going to meetings, giving occasional lectures (but many fewer by my decision than I once did), serving on national and international committees of one sort or another, etc.

“Now almost 81, in 2001 I shall complete sponsorship of my last graduate student and my last postdoctoral, again by my decision. My department and the Cancer Research Laboratory continue to make me feel thoroughly at home in the milieu in which I have been immersed for the past 52+ years. Last fall I participated in the 50th anniversary of the unconstitutional University of California “loyalty oath.” Along with extant former University presidents, a small number of resisters also spoke, recalling the intensely emotional atmosphere of the time.

“I continue to be viewed as a senior comparative and tumor endocrinologist. I am still active professionally, publishing an occasional research paper. A year or so ago, my 30-year commitment with my research colleague, Dr. Richard S. Nishioka, to physiological studies on the caudal neurosecretory system of fishes (“urophysiology”) was revived by the discovery by the laboratory of Professor Hubert Vaudry at Rouen of the gene for the urotensin II precursor in mammalian (including human) motoneurons. The gene of the receptor for this peptide in mammalian tissue has also been characterized recently by several groups.

“My current professional interests are focused in three areas. For 40 years I taught a course in The Biology of

Chemical Mediation (rather than Endocrinology) based on the stance that chemical communication was an essential characteristic of life. This point of view has been skillfully elaborated independently by Arnold De Loof of Belgium, writing on “What is Life?” on the 50th anniversary of the publication of Erwin Schrödinger’s book of the same name. Schrödinger’s landmark presentation can be considered the philosophical foundation of today’s molecular biology, at least of the reductionist type. De Loof’s approach, which contributed to his being awarded a “nobeloid” prize by the Flemish Academy of Science and the King of Belgium in 2000, is that of an integrative, organismal biologist, a position which I certainly appreciate. It gave me great pleasure to chair the international committee that selected Professor De Loof for this important award.

“A second professional area of interest derives from my laboratory’s earlier studies, initiated in the 1960s with my Japanese postdoctoral associate, Noboru Takasugi, later president of Yokohama City University and present chair of the Yokohama Board of Education. We used a neonatal mouse model and established that early exposure to sex hormones during a critical period of development permanently and irreversibly altered the reproductive tract, among other systems as later work has shown. These studies preceded the discovery of the long-term consequences, including vaginal cancer, by my later co-editor, Arthur Herbst, of prenatal exposure to diethylstilbestrol in the human. With the present concern regarding environmental endocrine disruptors, our initial studies have become recognized for their relevance, and I continue to participate in meetings and offer counsel in this fast-moving area of research.

“A third area of active concern reflects my identification with comparative endocrinology, especially the endocrinology of fishes. We are study-

ing the physiology of IGF in fishes and the role of IGF-binding proteins in fish growth. Our experimental animal currently is the tilapia *Oreochromis mossambicus*, a hardy euryhaline species with worldwide tropical and subtropical distribution (including southern California’s salt lakes and drainage ditches!). There are two papers in press on this subject, and my last graduate student is working in this area.

“I cannot see myself, even now, entirely detached from the research areas I have described. I maintain contact with enough colleagues intramurally and extramurally to support a degree of intellectual alertness. In Japan, France, and Britain, I have continuing collaborations.

“I find myself continually surprised and excited that research areas and initiatives that even I considered passé undergo revival in the hands of younger scientists with new expertise. If the research area does not die, the former researcher has some intellectual *raison d’être*, and this is a continuing source of pleasure and allows a feeling of sustained involvement. However, the greatest source of satisfaction is to watch the success and increasing recognition of the PhD students (around 45) and postdoctoral associates (around 100) I have had.

“They remain an essential part of my life and of my interactions. They keep me young!”

**Thomas K. Akers** writes: “Thank you for the Birthday Greetings. I’ve been a fan of the “News from Senior Physiologist” for years. In 1992 after three trips to the ICU for coronary problems, I decided to de-stress and retire from the University and Medical School. I was Chair of the Physiology Department and became Professor Emeritus in June 1992.

Nick Sperelakis had asked me to contribute a chapter on “The Physiological Effects of High Pressure on Cell Function” for the book he was editing

## News From Senior Physiologists

entitled *Cell Physiology: A Source Book*. So the first thing I did after moving to Port Angeles, WA was to set up my computer and hook up to the internet for library contact and write the chapter. The book was published in 1995 followed by a revised second edition in 1998. I also completed two manuscripts for publication of the last research I worked on.

In the meantime I made a connection with the local college to teach a course in physiology for seniors in the community. No test, no grades---pure heaven!! The first course was in winter quarter 1992 entitled "An Owners Manual for the Human Body," It was well-received and led to a second course "Mind, Brain, Body, Spirit" in spring 1993 and then a course called "Alternative Health Care Strategies," a comparative study of various approaches to good health including allopathic, osteopathic, homeopathic, chiropractic, naturo-pathic, ayurveda, chi gong, acupuncture, reflexology, rolfing, Alexander tech-

nique, yoga, herbals, and nutrition. These courses proved to be so popular and so much fun that I found myself teaching each quarter until winter 98-99 when I had added a Elderhostel course to the mix and finally needed a sabbatical. Thus, I have stopped for the time being.

I've also been active in the arts (I've painted since 1948). I joined an art league so as to have a gallery for show and sell of my paintings, and was a founding member of the "Juan de Fuca Festival of the Arts." From 1993 to the present, I was President. I also worked with the Port Angeles Community Players as Light and Sound technician for five years and acted in eight plays to date. Great fun!!!

"To my younger colleagues: INFORM THE GENERAL PUBLIC ABOUT SCIENCE AND, IN PARTICULAR, PHYSIOLOGY in plain English (we all use too much jargon). After all, they support us with their tax money. A good way to do this is through

the media, be friends with newspaper and TV reporters; they'll call you for information when they have a science story; give it to them or refer to a scientist who knows things you don't. We're all specialists these days. Many universities have radio stations, all looking to fill airtime. I had a half-hour weekly radio show called "Science Now" on KFJM AM for 155 weeks. It consisted of a simple format: introduction, news tidbits (culled from *Fed. Proc.*, *The Physiologist*, *Science News*, etc.), station identification, and introduce a guest scientist. Talk to your fellow scientist to go on the radio and talk about their favorite subject (their research). Always paraphrase their answers in plain English to be sure you and your listeners understand. Sign. That easy.

Well, I could go on but I'll stop. I know that the public appreciated the radio science show from all the letters I got." ♦

**New for EB 2001...**

### **How to Write, Review, and Publish in APS and ASPET Journals**

A Workshop co-sponsored by  
the APS Women in Physiology  
Committee and the  
ASPET Committee on  
Women in Pharmacology

### **Make scientific writing and reviewing an exciting challenge rather than a necessary chore...**

All the best efforts at the laboratory bench will be wasted if you cannot properly communicate the results of your research in the form of a high quality scientific publication. This interactive workshop will engage young graduate students, postdoctoral fellows, and junior faculty members of both genders in activities to develop skills in writing, reviewing, and publishing in APS and ASPET Journals.

- Learn the importance of writing a clear Introduction
- Discuss the difference between reiterating results and discussing data in the Discussion
- Find out what reviewers look for when they read your submitted manuscript

Panelists include Editors/Associate Editors of APS and ASPET Journals

**Sunday, April 1, 9-11:00 a.m., The Peabody Hotel, Plaza Ballroom B**

## Positions Available

**Cardiothoracic Surgery–Physiologist:** An excellent opportunity exists for a faculty position in the North Shore-Long Island Jewish Health System. This would involve establishing a laboratory examining issues related to cardiopulmonary bypass, myocardial protection, cerebral protection, and other aspects of heart and lung surgery. A background in cellular and/or molecular biology is required along with capability of working with small and large animals in this discipline. The program will be looking at establishing itself in the areas of cardiovascular and pulmonary physiology pertinent to cardiothoracic surgery. Candidates should have a PhD or MD degree and an excellent track record in publications and postdoctoral research experience. Applicants should submit a curriculum vitae, including a statement of research interests and the names of at least three references. Please forward curriculum vitae and inquiries to: H. Hank Simms, MD, Chairman, Department of Surgery, North Shore-Long Island Jewish Health System, 300 Community Drive, Manhasset, NY 11030. Tel: 516-562-2870; fax: 516-562-4821.

**Biological Science Assistants:** The US Army Research Institute of Environmental Medicine (USARIEM) in Natick, MA has multiple positions available for qualified Biological Sciences Assistants. USARIEM conducts basic and applied research concerning optimization of performance under stressful conditions and avoidance of associated medical problems. The positions require enlistment into the US Army for six years with the assignment at USARIEM, which is in the Boston suburbs. Educational requirement is a Bachelor's or Master's Degree in biology, physiology, microbiology, exercise science, nutrition, biomechanics or biochemistry. Applicants should have a history of high academic achievement and be highly motivated. Previous experience as a research technician employing procedures related to either human, animal, tissue and/or molecular research is desired. Benefits include student loan repayment of up to \$55,000, housing, medical care, graduate educational opportunities, as well as excellent research experiences in a variety of scientific disciplines, including environmental and exercise physiology, nutrition and metabolism, pathophysiology, genomics, and molecular biology. The open positions are located in the Military Performance Division, Military Nutrition Division, and Thermal and Mountain Medicine Division. Candidates can obtain further information by sending a letter of interest and resume or CV to: Dr. Kent B. Pandolf, Senior Scientist, US Army Research Institute of Environmental Medicine, Natick, MA 01760-5007. Tel: 508-233-4832; Email: Kent.Pandolf@na.amedd.army.mil.

**Postdoctoral Scholar:** The Cardiovascular Diseases Division, University of Iowa College of Medicine, is seeking a postdoctoral scholar for research in defibrillation and resuscitation. The position requires documented experience and expertise in all of the following research techniques and areas in use in the laboratory: arrhythmia diagnosis and therapy; transthoracic and epicardial defibrillation; closed chest and open chest resuscitation after cardiac arrest; electron paramagnetic spin resonance; spectrophotometry; nitric oxide metabolism; immunohistochemistry (especially nitrotyrosine staining); echocardiography (both transthoracic and intracardiac); and large (canine and porcine) and small (mice, rats, rabbits) animal surgery, including thoracotomy and Langendorff isolated heart preparations; and insertion of coronary arterial and coronary sinus catheters. A minimum of 50 canine thoracotomies and 100 porcine documented surgical procedures are required. The position requires a PhD; an MD/PhD is preferred for clinical as well as laboratory applications. The salary will be \$31,000 plus fringe benefits. Letters of application should be sent to: Dr. Richard Kerber, Department of Internal Medicine, University of Iowa Hospitals; email: richard-kerber@uiowa.edu. Women and minorities are strongly encouraged to apply. [EOE/AA]

**Assistant Professor of Cardiovascular Medicine:** The Division of Cardiovascular Medicine, University Of California, Davis, is seeking applications for a tenure-track position as an Assistant or Associate Professor with expertise in basic research in cardiovascular biology. We are particularly interested in recruiting individuals with strong expertise in molecular genetics and gene expression profiling or physiological genomics in murine models of cardiovascular-related diseases. Candidates should have a PhD, MD, or MD/PhD degree, a clear record of scientific excellence, and must hold or be competitive for external research funding. The successful individual will be expected to have an independent research program and to participate in teaching of graduate, postgraduate, and medical students. The Division has related research programs in exercise, vascular biology, cardiac metabolism, and cardiac ion channel regulation. Send letters, with complete curriculum vitae, names, and address of three references to: Ann C. Bonham, PhD, Chair, Cardiovascular Medicine Faculty Search Committee, c/o Terri Bradley, Division Manager, University of California, Davis Medical Center, Division of Cardiovascular Medicine, 4860 Y Street, Suite 2820, Sacramento, CA 95817. Positions are "Open until filled," but not later than July 1, 2001. [EOE/AA]



## Positions Available

**Research Associate/Assistant Professor:** The Obesity and Diabetes Research Center of the University of Maryland School of Medicine has a position available in the areas of mechanisms of diabetes, obesity, and aging. NIA- and industry-funded projects include the early physiological/molecular development of diabetes and aging; metabolic, enzymatic, and insulin signaling alterations in calorie restriction and aging; prevention of diabetes and its complications; B-cell culture, pancreatic islet and transplant; and molecular aspects of aging, diabetes, and obesity. Doctorate and interest in integrating in vivo and in vitro studies required. Start date is approximately July 2001. Send a curriculum vitae and an outline of research experience and interests to B.C. Hansen, Director, Obesity and Diabetes Research Center, Department of Physiology, University of Maryland, School of Medicine, 10 S. Pine Street, #6-00 MSTF, Baltimore, MD 21201. Fax: 410-706-7540; email: bchansen@aol.com. [EOE]

**Research Associates:** Two NIH-funded postdoctoral positions are available immediately at the Children's Research Center in the Department of Pediatrics at the University of Arizona in the lab of Faye K. Ghishan, MD. The qualified applicants will have a PhD or MD and experience in molecular biology, cell biology, biochemistry, or a related area. Competitive salary is negotiable and dependent upon experience. See Job #994052 at <http://www.hr.arizona.edu> for further details. To apply, please submit a curriculum vitae and the names of 3 references to James F. Collins, PhD, Pediatrics/PO Box 245073, 1501 N. Campbell Ave., Tucson, AZ 85724 or send to [jcollins@peds.arizona.edu](mailto:jcollins@peds.arizona.edu). Application review begins March 2, 2001 and will continue until positions are filled. [EEO/AA; M/W/D/V]

**Research Assistant:** A skilled Research Assistant is needed to work as part of a laboratory group carrying out discovery research in diverse areas of metabolism and physiology. Responsibilities will include an analysis of in vivo models and in vitro assessments of various parameters in cell cultures and tissues. The Research Assistant will be expected to work independently to carry out experiments using established models and to develop new experimental protocols to meet the needs of various project teams. Requirements: BS/MS in biological sciences or related field and 3+ years experience with hands-on experience with in vivo systems, cell culture, and biochemical/analytical quantitative assays. The ideal candidate will possess basic surgical skills and will have participated in assay development and validation. The individual should be self-motivated with excellent organizational talents. Please send applications to: Sean H. Adams, PhD, Scientist, Department of Endocrinology, Genentech, Inc., 1 DNA Way, South San Francisco CA 94080. Tel: 650-225-8841; fax: 650-225-6497; email: [shadams@gene.com](mailto:shadams@gene.com).

**Postdoctoral Fellow:** The Department of Pediatrics at Emory University School of Medicine is seeking an individual to study the effects of chronic ethanol ingestion on pulmonary cell physiology. The project examines the impact of chronic ethanol ingestion on reactive oxygen species generation, mitochondrial function, apoptosis, cell-cell junctions, and extracellular matrix. Research involves both human and animal models and examines physiological mechanisms at the whole animal, whole organ, and cellular/molecular level. Candidates should have a PhD degree with one or more years of postdoctoral experience in reactive oxygen species, extracellular matrix, molecular biology, quantitative confocal laser scanning fluorescence microscopy, and/or immunofluorescence techniques. Interested individuals should submit a complete curriculum vitae, a brief description of research interests, and names and addresses (including email and phone numbers) of three references to: Lou Ann S. Brown, PhD, Department of Pediatrics, Emory University School of Medicine, 2040 Ridgewood Drive, NE, Atlanta, GA 30322. Fax: 404-727-9834; email: [louann.brown@oz.ped.emory.edu](mailto:louann.brown@oz.ped.emory.edu). Review of applications will begin immediately and will continue until the position is filled. Women and minorities are encouraged to apply. [EOE/AA]

**Assistant Research Scientist:** The Department of Internal Medicine, Infectious Diseases Division, University of Iowa College of Medicine, is seeking an Assistant Research Scientist to perform independent research in a tuberculosis pathogenesis laboratory. The candidate should have a working knowledge of pulmonary surfactant, macrophage signal transduction, and cell biology. The person will have the responsibility for identifying and selecting the problems to be studied, the approach to them, and the results obtained. A person in this classification is required to have the academic knowledge of a discipline generally associated with a doctoral degree or an equivalent professional degree, i.e., MD, DDS, or DVM. In addition, such a person will have demonstrated the ability to plan and execute a research study through some progressively responsible independent research work. A working knowledge of tuberculosis pathogenesis is desired. Considerable expertise in performing experiments in macrophage signal transduction (Western blotting, kinase assays, immunoprecipitation), in confocal microscopy and flow cytometry, and in the handling of mice and isolation and cultivation of mouse macrophages is desired. Please send a resume and cover letter indicating #44476 to: Carol Wehby, Human Resources, Internal Medicine, E400 GH, 200 Hawkins Drive, Iowa City, IA 52242-1081. Women and minorities are strongly encouraged to apply. [EOE/AA]

## Positions Available

**Senior Researcher:** The Division of Clinical Perfusion Sciences at the University of Nebraska Medical Center (UNMC), Omaha, NE (<http://www.unmc.edu/cpe/>), seeks applicants for the position of Senior Researcher in extracorporeal circulation and cardiovascular pathophysiology. This tenure-track faculty position will be at the Assistant/Associate Professor level and will involve leadership in the department's development of a nationally recognized, extramurally funded research program and the instruction of graduate level perfusion students. Candidates must hold either a PhD or an MD. Rank and salary are subject to applicant's qualifications. Applicants should send a curriculum vitae, a detailed statement of research interests, representative reprints, and addresses of three references to: Search Committee, Division of Clinical Perfusion Sciences, 985155 Nebraska Medical Center, Omaha, NE 68198-5155. The Search Committee will begin screening applicants **March 1, 2001**, and applications will be accepted until the position is filled. Women and minorities are encouraged to apply. [EOE/AA]

**Genetic Research Position in Human Cardiovascular Physiology:** A staff research assistant position at the University of Colorado-Boulder is immediately available to provide technical support for research on the genetic aspects of human cardiovascular physiology and aging. Primary responsibility will be to assist with the development of a research program in physiological genomics. The focus will be on the examination of gene expression and functional polymorphisms. A strong background and knowledge in applying molecular genetic methods to understand human physiology is required. Experience with using commercially available chip-based microarrays is preferred. Minimum MS degree or BS with experience in genetic epidemiology, genetics, molecular biology, or a related field is required. The ability to work cooperatively with a team of investigators is essential. Energetic, highly motivated individuals with initiative to provide expertise and leadership are strongly encouraged to apply. Starting date ideally is Spring 2001 but is negotiable. Salary is competitive. Review of applications will begin immediately and will continue until the position is filled. Applicants need to send a curriculum vitae and three letters of reference to: Margaret Whitford, Human Cardiovascular Research Laboratory, University of Colorado at Boulder, 354 UCB, Boulder CO80309. Email: [Margaret.Whitford@Colorado.EDU](mailto:Margaret.Whitford@Colorado.EDU). For further information on our laboratory, visit the following site: <http://www.colorado.edu/kines/Lab/Lab.html>. The University of Colorado at Boulder strongly supports the principle of diversity. We are particularly interested in receiving applications from women, ethnic minorities, disabled persons, veterans, and veterans of the Vietnam era.

**Postdoctoral Positions:** Two NIH-funded postdoctoral positions are available to study the molecular endocrinology of pregnancy. Individuals will participate in research on uteroplacental cytokine signaling in the establishment and maintenance of pregnancy. Molecular dissection of signaling pathways will involve in vitro, DNA microarray, transgenic, and gene targeting approaches. Applicants should have a PhD and/or an MD degree and experience in molecular biology, cell biology, biochemistry, or a related area. Competitive salaries will be negotiable and dependent on experience. Application review begins immediately and will continue until the positions are filled. Please send curriculum vitae, a letter outlining research experience and career goals, and the names and addresses of three references to: Dr. Michael J. Soares, Department of Molecular and Integrative Physiology, University of Kansas Medical Center, 3901 Rainbow Blvd, Kansas City, KS 66160. Email: [msoares@kumc.edu](mailto:msoares@kumc.edu). [EOE/AA]

**Postdoctoral Position:** A postdoctoral position in the genetic aspects of human cardiovascular physiology is immediately available at the University of Colorado-Boulder to work on the genetic aspects of human cardiovascular physiology and aging. Primary responsibility of the successful candidate is to assist in developing a research program in physiological genomics. The focus will be on the examination of gene expression and functional polymorphisms. A strong background and knowledge in applying molecular genetic methods to understand human physiology is required. Experience with using commercially available chip-based microarrays is preferred. A doctorate degree in genetic epidemiology, genetics, molecular biology, or a related field is required. The ability to work independently and cooperatively with a team of investigators is essential. Energetic, highly motivated individuals with initiative to provide expertise and leadership are strongly encouraged to apply. The starting date is ideally Spring 2001, but is negotiable. Salary is competitive. The review of applications will begin immediately and will continue until the position is filled. Applicants need to send statement of research interests, curriculum vitae, and three letters of reference to: Margaret Whitford, Human Cardiovascular Research Laboratory, University of Colorado at Boulder, 354 UCB, Boulder CO80309. Email: [Margaret.Whitford@Colorado.EDU](mailto:Margaret.Whitford@Colorado.EDU). For further information on our laboratory, visit the following site: <http://www.colorado.edu/kines/Lab/Lab.html>. The University of Colorado at Boulder strongly supports the principle of diversity. We are particularly interested in receiving applications from women, ethnic minorities, disabled persons, veterans, and veterans of the Vietnam era.

## Books Received

### *Chromogranins: Functional and Clinical Aspects*

Karen B. Helle and Dominique Aunis (Editors).  
*Advances in Experimental Medicine and Biology*, Vol. 482.  
New York: Kluwer Academic/Plenum, 2000, 426 pp., index,  
\$110.  
ISBN: 0-306-46446-2.

### *The Mechanization of the Mind: On the Origins of Cognitive Science.*

Jean-Pierre Dupuy. Translated by M.B. DeBevaise.  
Princeton, NJ: Princeton Univ. Press, 2001, 210 pp., index,  
\$29.95.  
ISBN: 0-691-02574-6.

### *Computerized Data Acquisition and Analysis for the Life Sciences: A Hands-on Guide.*

Simon S. Young.  
New York: Cambridge Univ. Press, 2001, 237 pp., index,  
\$29.95.  
ISBN: 0-521-56570-7.

### *Signals and Systems in Biomedical Engineering: Signal Processing and Physiological Systems Modeling.*

Suresh R. Devasahayam.  
*Topics in Biomedical Engineering International Book Series.*  
New York: Kluwer Academic/Plenum, 2000, 337 pp., index,  
\$79.50.  
ISBN: 0-306-46391-1.

## People & Places

**Yasutada Akiba** has recently joined the Department of Internal Medicine, Kelo University School of Medicine, Tokyo, Japan. Previously, Akiba was with the Department of Medicine, Cure/UCLA and West LA VAMC, Los Angeles, CA.

Accepting a position with Transform Pharmaceuticals Inc., Waltham, MA, **Kurt Amsler** has left the Department of Physiology and Biophysics, UMDNJ, Robert Wood Johnson Medical School, Piscataway, NJ.

Joining the Department of Medicine, Albert Einstein College of Medicine, Bronx, NY, **Barbara J. Ballermann** has moved from the Department of Medicine, Johns Hopkins University, Baltimore, MD.

Recently, **Douglas E. Befroy** moved from the Department of Biochemistry, University of Oxford, England. Currently, Befroy is with the Boyer Center for Molecular Medicine, Yale University School of Medicine, New Haven, CT.

**Simon Berneche** affiliated with the Biochemistry Department, Weill Cornell Medical College, New York, NY. Prior to his new assignment, Berneche was with the Department of Physics, University of Montreal, Quebec, Canada.

**Jeffrey J. Bishop** has joined the Department of Research and Development, Biosite

Diagnostics, San Diego, CA. Prior to his new assignment, Bishop was with the Department of Bioengineering, University of California at San Diego, La Jolla, CA.

Associating with the Center for Human Genomics, Wake Forest University School of Medicine, Winston Salem, NC, **Eugene R. Bleecker** has moved from the Department of Medicine, University of Maryland, Baltimore, MD.

**James Ernest Blevins** has affiliated with the Department of Metabolism, VA Puget Sound Health Care Systems, Seattle, WA. Prior to his new commitment, Blevins was with the Department of Anatomy, Physiology, and Cell Biology, School of Veterinary Medicine, Davis, CA.

**Gary P. Burness** was formerly associated with the Department of Zoology, University of British Columbia, Vancouver, BC, Canada. Presently, Burness is affiliated with the Department of Physiology, UCLA School of Medicine, Los Angeles, CA.

Accepting a position with the Department of Food Science and Human Nutrition, College of Applied Human Sciences, Colorado State University, Fort Collins, CO, **L. Arthur Campfield** has moved from the Center for Human Nutrition, University of Colorado Health Science Center, Denver, CO.

**David P. Carlton** has affiliated with the Center for Perinatal Care, University of Wisconsin and Meriter Hospital, Madison, WI. Carlton was with the Department of Pediatrics, University of Utah Health Science Center, Salt Lake City, UT.

Having joined the Division of Neurosciences, Baylor College of Medicine, Houston, TX, **Raymond A. Chitwood** has left the Division of Life Science, University of Texas, San Antonio, TX.

**James Liberal Costantin** is now a member of the Department of Molecular and Cellular Biology, University of California, Berkeley, CA. Prior to his new position, Costantin was with the Department of Neurology, University of California, Los Angeles, CA.

Moving from the Department of Neurobiology, SUNY, Stony Brook, NY, **Charles L. Cox** has joined the Department of Molecular and Integrative Physiology, University of Illinois, Urbana, IL.

**Brant Alan DeFanti** has joined the Department of Physiology and Nutrition, University of Navarra, Pamplona, Spain. Previously, DeFanti was with the Department of Animal Physiology, University of California, Davis, CA.

Formerly, **Frank A. Dinunno** was with the Department of Kinesiology, University of Colorado, Boulder, CO. Presently, Dinunno

## People & Places

is affiliated with the Department of Anesthesiology, Mayo Clinic and Foundation, Rochester, MN.

**Ines Drenjancevic-Peric** is now associated with the Department of Anesthesiology, Medical College of Wisconsin, Milwaukee, WI. Drenjancevic-Peric was with the Department of Physiology, University of Osijek Medical School, Croatia.

Recently, **David H. Ellison** joined the Division of Nephrology, Hypertension, and Clinical Pharmacology, Oregon Health Sciences University, Portland, OR. Prior to his new position, Ellison was with the Department of Internal Medicine, University of Colorado School of Medicine, Denver, CO.

**Lynn M. Everett** is now associated with the Department of Biology, Wesley College, Dover, DE. Prior to her new affiliation, Everett was with the Department of Medicine, VA Research, Indiana University School of Medicine, Indianapolis, IN.

**Arthur N. Freed** is currently affiliated with the National Heart, Lung, and Blood Institute, Division of Extramural Affairs, Review Branch, Bethesda, MD. Freed was previously affiliated with Environmental Health Sciences, Johns Hopkins University, Baltimore, MD.

**Jed E. Friedman** is now associated with the Department of Pediatrics, Biochemistry, and Molecular Genetics, University of Colorado Health Sciences Center, Denver, CO. Friedman was with the Department of Nutrition, Case Western Reserve University School of Medicine, Cleveland, OH.

Moving to the Department of Physiology and Biophysics, University of Washington, Seattle, WA, **Stanley C. Froehner** has left the Department of Cell and Molecular Physiology, University of North Carolina, Chapel Hill, NC.

**David Robert Grimm** has become a member of the Department of Physiopathology, New York Chiropractic College, Seneca Falls, NY. Grimm was previously associated with the Department of Medicine, Mount Sinai School of Medicine, VA Medical Center, Spinal Cord Research, Bronx, NY.

Moving to the Department of Biological Sciences, Louisiana State University, Baton Rouge, LA, **Steven C. Hand** has moved from the Department of Environmental Population and Organismic Biology, University of Colorado, Boulder, CO.

**Karl M. Hermann** has affiliated with the Department of Therapy Services, College Station Medical Center, College Station, TX. Hermann was formerly with the Department of Health and Kinesiology, Texas A&M University, Bryan, TX.

**Carl E. Hunt** has been appointed Director, National Center for Sleep Disorders Research, NIH, National Heart, Lung and Blood Institute, Bethesda, MD. Formerly, Hunt was with the Department of Pediatrics, Medical College of Ohio, Toledo, OH.

Joining the Department of Physiology, Medical College of Georgia, Augusta, GA, **Edward W. Inscho** has recently moved from the Department of Physiology, Tulane University School of Medicine, New Orleans, LA.

Moving from the Department of Physiology, University of Otago, Hamilton, New Zealand, **Juanita Kylie Jellyman** has affiliated with the Department of Physiology, University of Cambridge, Cambridge, England.

Joining the Physiology Program, Harvard School of Public Health, Boston, MA, **Richard A. Johnston** has moved from the Department of Pharmacology and Toxicology, West Virginia University, Robert C. Byrd Health Science Center, Morgantown, WV.

**Kevin M. Kelley** has joined the Department of Medicine, University of California-San Diego, La Jolla, CA. Prior to his new position, Kelley was with the Department of Health and Human Performance, Auburn University, Auburn, AL.

Recently, **Song-Jung Kim** joined the Department of Cardiovascular Research Institute, UMDNJ, New Jersey Medical School, Hackensack University Medical Center, Hackensack, NJ. Kim had previously been with the Weis Center for Research, Pennsylvania State University College of Medicine, Danville, PA.

Accepting a position in the Department of Biochemistry, Ernest Gallo Clinic and Research Center, Emeryville, CA, **Allison M. Kitten** has moved from the Department of Biology, Trinity University, San Antonio, TX.

**Naohiro Koshiya** has affiliated with the Blanchette Rockefeller Neuroscience Institute, Rockville, MD. Previously, Koshiya was with the Laboratory of Neural Control, NINDS, NIH, Bethesda, MD.

Previously with the Department of Genetics, Biochemistry, and Microbiology, University of Cincinnati College of Medicine, Cincinnati, OH, **Carissa Marie Krane** has recently joined the Department of Biology, University of Dayton, Dayton, OH.

Joining the Department of Surgery, Wellington School of Medicine, Wellington, New Zealand, **Peter Donald Larsen** has moved from the Department of Pharmacology and Toxicology, Michigan State University, East Lansing, MI.

**Martin J. Mangino** has accepted a position with the Department of Surgery-Transplantation, University of Wisconsin School of Medicine, Madison, WI. Prior to his new assignment, Mangino was with Biomedical Research, Mount Sinai Medical Center, Pearlman Biomedical Research Institute, Miami Beach, FL.

Recently affiliating with the Department of Exercise Science and Physical Therapy, Marquette University, Milwaukee, WI, **Alexander V. Ng** has moved from the Department of Radiology Magnetic Resonance Unit, University of California, San Francisco, CA.

Accepting a position with the Department of Internal Medicine, Division of Nephrology, University of Michigan Medical School, Ann Arbor, MI, **James Lee Park** has moved from the Department of Diabetes and Metabolic Diseases, Parke-Davis Pharmaceutical Research, Ann Arbor, MI.

**Sharee Pepper** has joined the Telemedicine Project at the University of Hawaii School of Medicine, Honolulu, HI. Formerly, Pepper was affiliated with the National Library of Medicine, Extramural Program, NIH, Bethesda, MD.



## People & Places

**Jeffrey T. Potts** has accepted a position with the Department of Physiology, Wayne State University School of Medicine, Detroit, MI. Previously, Potts was associated with the Department of Physiology, Harry S. Moss Heart Center, University of Texas Southwestern Medical Center, Dallas, TX.

**Robert F. Rakowski** has joined the Department of Biological Sciences, Ohio University, Athens, OH. Previously, Rakowski was with the Department of Physiology and Biophysics, Finch University of Health Science, Chicago Medical School, North Chicago, IL.

Relocating to the Department of Physiology, University of Tennessee, Memphis, TN, **Radhakrishna Rao** has moved from the Department of Pediatrics, Cell Biology, and Anatomy, Medical University of South Carolina, Charleston, SC.

**David T. Raphael** has accepted an appointment with the Department of Anesthesiology, LAC-USC Medical Center, Los Angeles, CA. Prior to his new position, Raphael was associated with the Department of Anesthesia, UMDNJ, New Brunswick, NJ.

Recently affiliating with Biosupport, Redmond, WA, **Keith Neu Richmond** has

moved from the Department of Physiology and Biophysics, University of Washington, Seattle, WA.

Associating with the Department of Cardiology, Washington University, St. Louis, MO, **Paul Schaeffer** has moved from the Department of Biological Sciences, Northern Arizona University, Flagstaff, AZ.

Joining the Department of Psychology, University of Stirling, Scotland, **Solomon Silas Senok** recently moved from the Department of Physiology, University of West Indies, Champs Fleurs, St. Augustine, Trinidad and Tobago.

Associating with the School of Human Genetics, University of British Columbia, Vancouver, BC, **Andrew William Sheel** has left the Department of Preventive Medicine, University of Wisconsin, Madison, WI.

**Lawrence L. Spriet** has recently moved from the School of Health Sciences, Deakin University, Burwood, Victoria, Australia. Spriet has accepted a position with the Department of Human Biology and Nutritional Sciences, University of Guelph, Guelph, Ontario, Canada.

Accepting a position with the Division of Endocrinology, University of Southern

California, Los Angeles, CA, **Elena Volpi** has moved from the Department of Internal Medicine and Geriatrics, University of Texas Medical Branch, Galveston, TX.

Appointed to the Department of Biomedical Sciences, Cornell University College of Veterinary Medicine, Ithaca, NY, **Yong-Xiao Wang** has left the Center for Cardiosciences, Albany Medical Center, Albany, NY.

**Philine Wangemann** is currently affiliated with the Department of Anatomy and Physiology, Kansas State University, Manhattan, KS. Previously, Wangemann was the Coordinator of the Cell Physiology Lab, Boys Town National Research Hospital, Omaha, NE.

Recently accepting a position with Novartis Pharmaceuticals Corporation, Summit, NJ, **Xiang Wu** has moved from the Department of Molecular Biophysics and Biochemistry, Yale University, New Haven, CT.

Joining the Department of Surgery, SUNY Downstate Medical Center, Brooklyn, NY, **Michael E. Zenilman** has moved from the Department of Surgery, Albert Einstein College of Medicine, Bronx, NY.

## Lake Cumberland Biological Transport Group Meeting

It is time to plan for the 2001 Lake Cumberland Biological Transport Meeting (affiliated with APS). The central theme of the meeting is biological transport, but presentations in other areas including cell biology/physiology and signal transduction are welcome. This meeting is an excellent forum for principal investigators, postdoctoral fellows, and graduate students alike to present their data and receive feedback.

Sessions will be held in the mornings and evenings on Sunday, June 17 to Tuesday, June 19. Afternoons are free to enjoy swimming, fishing, golfing, riding, hiking, or any of the other activities at the site of the meeting, Lake Cumberland State Resort Park, Jamestown, KY.

For more information, contact:

Dan Halm	Eric Delpire
Wright State University	Vanderbilt University
3640 Colonel Glenn Hwy	1161 21st Ave. South
Dayton, OH 45435	Nashville, TN 37232
Tel: 937 775-2742	Tel: 615-343-7409
Fax: 937 775-3769	Fax: 615-343-3916
E-mail: dan.halm@wright.edu	Email: eric.delpire@mcm.vanderbilt.edu

or visit the Web site at:

<http://iupucbio1.iupui.edu/cumberland/>

## Announcements

### Book Wanted

You may recall the recent passing of T.A.I. Grillo, former Professor of Anatomy and Founding Dean of the School of Medicine at the University of Ile-Ife, Nigeria and of other West African medical schools.

Known for his pioneer work on the histochemistry of pancreatic enzymes and on the comparative embryology and physiology of the pancreatic islets, Dr. Grillo died of general sepsis while serving as Resident Fellow at the Churchill College in Cambridge.

I have been informed that the University of Ile-Ife has established a T.A.I. Grillo Memorial Library to which I was

glad to contribute a number of volumes, including a collection of Recent Progress in Hormone Research, complete, but for volume 13, 1957. I now write hoping to hear from someone willing to sell me a copy of this volume so that I may fill this void or to contribute to this effort in some way.

*Peiro P. Foa*  
Emeritus Professor  
Department of Physiology  
Wayne State University  
540 East Canfield Avenue  
Detroit, MI 48201

### FASEB Releases Latest Breakthroughs Article

FASEB is pleased to announce the publishing of *Making Anesthesia Safer: Unraveling the Malignant Hyperthermia Puzzle* by Marilyn Larach. This latest article in the FASEB's Breakthroughs in Bioscience series provides an overview of the genetics, physiology, and biochemistry of a syndrome called malignant hyperthermia (MH), which is triggered in susceptible individuals by commonly used general anesthetics. The signs of MH include a greatly increased body metabolism, muscle rigidity, and eventual hyperthermia that may exceed 110°F. If not immediately diagnosed and treated, death can result.

This article describes the intriguing path that has led to the discovery and treatment of MH. It illustrates the interaction between researchers in disparate

areas of science and the fact that fundamental science can result in discoveries that have important health benefits. Although the specific cause of MH has not been discovered, research in this area suggests that the syndrome involves a general breakdown in the way that the contraction of our muscles is regulated. By studying MH, scientists and physicians have therefore developed a better understanding of this muscular regulation, which may allow for the development of new ways to prevent and treat heart attacks.

The Breakthroughs series is a collection of illustrated articles that explain recent developments in basic biomedical research and how they are important to society. This article is the ninth in the series published by FASEB.

Other articles are:

*Serendipity, Science, and a New Hantavirus;*

*The Polymerase Chain Reaction;*

*Blood Safety in the Age of AIDS;*

*Unraveling the Mystery of Protein Folding;*

*Cardiovascular Disease and the Endothelium;*

*Helicobacter pylori and Ulcers: a Paradigm Revised;*

*Cloning: Past, Present, and the Exciting Future;* and

*MRI: From Atomic Physics to Visualization, Understanding and Treatment of Brain Disorders.*

The article and the rest of the series may be requested by calling 301-571-0657 or viewed by visiting the FASEB Breakthroughs in Bioscience website at <http://www.faseb.org/opar/break/>.

## Moving?

If you have moved or changed your phone, fax, or email address, please notify the APS Membership Office at 301-530-7171 or fax to 301-571-8313.

Your membership information can also be changed by visiting the Members Only portion of the APS website at <http://www.the-aps.org>.

# Announcements

## Invitation to Attend the ISP-2002 Congress in Budapest

On behalf of the Hungarian Physiological Society, the Hungarian Academy of Sciences, and the Capital of Hungary, we cordially invite our fellow scientists interested in various fields of pathophysiology and related sciences to attend the Fourth International Congress of Pathophysiology from June 29-July 5, 2002, the World Congress of the International Society for Pathophysiology (ISP). The first ISP congress of the new Millennium will be held at the modern Eötvös Loránd University (ELTE) Convention Centre in Budapest, Hungary.

The scope of the Congress will cover a whole array of topics from mechanisms of disease to rationale of therapies. All fields of pathophysiology and clinical physiology will be represented from the molecular level to integrative supra-individual approaches. Plenary lectures by prominent invited scientists, special congress symposia with state of the art lectures, oral and poster sections, workshops, as well as exhibitions will

be organized. The program will be developed in close cooperation with the International Advisory Board of leading scientists. For further information related to the ISP-2002 Congress, including pre-registration, please visit our Web Site at <http://isp2002.sote.hu>.

The 2002 conference of the European Society for Noninvasive Cardiovascular Dynamics (ES NI CVD) will be held as part of ISP-2002 Congress.

Venue of the Congress will be the Convention Centre of the ELTE, a campus with new university buildings located on the banks of the beautiful River Danube on the Buda side of the City in walking distance to Petöfi Bridge. This still expanding, modern facility provides an inspiring atmosphere for scientific events. The Main Congress Building itself, housing the Faculty of Sciences, will be the venue of ISP-2002, with excellent facilities to support all functions of the meeting, oral and poster sessions, exhibitions, and catering. Access by public transportation from all the main hotels and nearby stu-

dent hostels is easy. A large parking area is also available.

Congress Secretariat Cooptourist Travel Company (CTC) was established more than thirty years ago and since then it has become a leading travel agency in Hungary. Coopcongress Congress & Convention Management of CTC provides full conference service: registration, exhibition, meeting rooms, technical equipment, accommodations in various hotel categories, social and optional programs (excursions, banquet, etc.), and pre- and post-congress tours. Mailing address: Coopcongress, 1371 Budapest 5, PO Box 434. Phone: +36-1-209 4876, or 386 9831. Fax: +36-1- 466 9051. E-mail: [coopcong@euroweb.hu](mailto:coopcong@euroweb.hu)

We look forward to meeting you at the ISP-2002 Congress.

**Emil Monos**

*President of the Congress*

**Lajos Szollár**

*Secretary-General of the Congress*

## John F. Perkins, Jr. Memorial Fellowship Awards

The American Physiological Society invites applications for the John F. Perkins, Jr. Memorial Fellowships.

The fund is designed to provide supplementary support for families of foreign physiologists who have arranged for fellowships or sabbatical leave to carry out scientific work in the United States.

It is the interest of the Perkins Fund to develop the full potentialities for cultural benefit associated with scientific exchange. Preference will be given to physiologists working in the fields of respiratory physiology, neurophysiolo-

gy, and temperature regulation.

Application will be made by both the visiting scientist and his/her host. To qualify, the host must be a member of the American Physiological Society. Ordinarily, the joint applicants will have made financial arrangements for the visiting scientist before applying to the Perkins Fund for family support. The application will contain an account of these arrangements together with a description of the proposed scientific work, and a brief account of how the visitor and his family intend to make use of the cultural benefits.

Awards will be made in the range of \$1,500-\$3,000, depending upon the estimated needs of the family over and above the amount already available to the visiting scientist. Ordinarily, four-six awards will be available in any one year.

Applications for the host and visiting scientist may be obtained from the Executive Director, American Physiological Society, 9650 Rockville Pike, Bethesda, MD 20814-3991 USA; or by visiting the APS web site ([http://www.the-aps.org/awards/awd\\_society.htm#Perkins](http://www.the-aps.org/awards/awd_society.htm#Perkins)). ♦



## Scientific Meetings and Congresses

*April 22-27*

**22nd Annual International Society for Gravitational Physiology Meeting, Budapest, Hungary.** *Information:* Professor Laszlo Simon, President of ISGP, [simon@ana.sote.hu](mailto:simon@ana.sote.hu); or Dr. Peter Norsk, Chairman of ISGP Council of Trustees, [pnorsk.damec@post.uni2.dk](mailto:pnorsk.damec@post.uni2.dk); Internet: <http://www.isgp.org>.

*April 22-26*

**11th International Conference Second Messengers and Phosphoproteins, Melbourne, Australia.** *Information:* Email: [admin@secondmessengers.com](mailto:admin@secondmessengers.com); Internet: <http://www.secondmessengers.com>.

*April 25*

**Pharmacogenetics Research Network and Knowledge Base First Annual Scientific Meeting, Bethesda, MD** *Information:* Lister Hill Auditorium, National Institutes of Health, Bethesda, MD. Internet: <http://www.nigms.nih.gov/pharmacogenetics.html>.

*May 2-4*

**3rd Annual Samuel A. Latt/Motown microarray Meeting: Genomics and Proteomics in Cancer, Detroit, MI.** *Information:* Dr. Alexander Nakeff, Josephine Ford Cancer Center, Henry Ford Health System, One Ford Place, Detroit, MI 48202. Tel: 313/874-4879; fax: 313/874-6824; email: [anakeff1@hfhs.org](mailto:anakeff1@hfhs.org); Internet: <http://www.samlatt.org>.

*May 6-8*

**Spinal Cord Trauma: Neural Repair and Functional Recovery, Montreal, Canada.** *Information:* Ms. Chantal Nault. Tel: 514-343-6366; fax: 514-343-6113; email: [chantal.nault@umontreal.ca](mailto:chantal.nault@umontreal.ca); Internet: <http://www.crsn.umontreal.ca/XXIIIIs>.

*May 16-19*

**Psychoneuroimmunology: Molecules to Disease Models (9th International Meeting), Utrecht, The Netherlands.** *Information:* The Psychoneuroimmunology Research Society. Email: [pnirs@pnirs.org](mailto:pnirs@pnirs.org); Internet: <http://www.PNIRS.org>.

*May 18-20*

**Third Annual Real-Time 3D Imaging and Volume Rendering: Principles, Techniques, and Clinical Applications, Orlando, FL.** *Information:* Office of Continuing Medical Education, Johns Hopkins University School of Medicine, Turner 20, 720 Rutland Avenue, Baltimore, MD 21205-2195. Tel: 410-955-2959; fax: 410-955-0807; email: [cmenet@jhmi.edu](mailto:cmenet@jhmi.edu); Internet: <http://www.med.jhu.edu/cme>.

*May 21-22*

**Orphan Nuclear Receptors: Biology and Ligand Identification, Sunnyvale, CA.** *Information:* The Knowledge Foundation, Inc., 18 Webster Street, Brookline, MA 02446. Tel: 617-232-7400; fax: 617-232-9171; email: [custserv@knowledgefoundation.com](mailto:custserv@knowledgefoundation.com); Internet: <http://www.knowledgefoundation.com>.

*June 4-7*

**Critical Issues in Tumor Microcirculation, Angiogenesis and Metastasis: Biological Significance and Clinical Relevance (Sixteenth Annual Offering), Boston, MA.** *Information:* Harvard Medical School and Massachusetts General Hospital. Internet: <http://steele.mgh.harvard.edu>.

*June 11-12*

**The 6th Annual Midwest Physiological Societies, Madison, WI.** *Information:* University of Wisconsin-Madison, in the Pyle Center. <http://www.physiology.wisc.edu/mps>.

*June 13-16*

**NephroAsia 2001: Conquering Current Challenges in Nephrology (International Meeting of National Kidney Foundation of Singapore, American Society of Nephrology, and American Nephrology Nurses' Association), Singapore.** *Information:* National Kidney Foundation of Singapore. Tel: +65-299-0200; fax: +65-299-3164; email: [nephroasia@nkfs.org](mailto:nephroasia@nkfs.org); Internet: <http://www.nephroasia.com>.

*June 20-23*

**Endocrine Society's 83rd Annual Meeting, Denver, CO.** *Information:* Endocrine Society, 4350 East West Highway, Suite 500, Bethesda, MD, 20814-4426. Internet: <http://www.endo-society.org/scimtgts>.

*June 23-27*

**Control of Posture and Gait (Symposium of the International Society of Postural and Gait Research), Maastricht, The Netherlands.** *Information:* Organizing Secretariat, Conference Agency Limburg, PO Box 1402, 6201 BK Maastricht, The Netherlands. Tel: +31-043-361-9192; fax: +31-043-361-9020; email: [cal.conferenceagency@wxs.nl](mailto:cal.conferenceagency@wxs.nl); Internet: <http://www.mbfys.kun.nl/ispg2001/>.



# MEMBERSHIP APPLICATION FORM

## THE AMERICAN PHYSIOLOGICAL SOCIETY

### Tphys4.01

Check membership category you are applying for:  Regular  Affiliate  Student

Do you currently hold membership in the APS?  Yes  No

If you answered yes to above, what is your category of Membership? \_\_\_\_\_ Year elected? \_\_\_\_\_

Name of Applicant: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Last Name or Family Name First Name Middle Name

Date of Birth \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Optional: Male  Female   
Month Day Year

Institution Name \_\_\_\_\_ Department \_\_\_\_\_

Institution Street Address \_\_\_\_\_

City/State/Zip/Country \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

E-mail \_\_\_\_\_

### EDUCATIONAL STATUS \*(Important: if you are enrolled as a student, include the degree and pending date of completion)

Dates*	Degree*	Institution	Major Field	Advisor
--------	---------	-------------	-------------	---------

DOCTORAL DISSERTATION TITLE (if applicable): \_\_\_\_\_

POSTDOCTORAL RESEARCH TOPIC (if applicable): \_\_\_\_\_

**SPONSORS** (Sponsors must be APS Members. If you are unable to find sponsors, mail or fax this form to the address on the back of this form and we will locate them for you.)

Check this box if applicable:  Please locate sponsors on my behalf.

#1 Sponsor Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

Phone \_\_\_\_\_

Fax \_\_\_\_\_

E-mail \_\_\_\_\_

Sponsor Signature\* \_\_\_\_\_

#2 Sponsor Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

Phone \_\_\_\_\_

Fax \_\_\_\_\_

E-mail \_\_\_\_\_

Sponsor Signature\* \_\_\_\_\_

*\*signature indicates that sponsor attests applicant is qualified for membership.*

► Please turn over for 2 more questions...and mailing instructions.

---

**Membership Application** (Continued...) **Applicant Last Name** (please print) \_\_\_\_\_

**OCCUPATIONAL HISTORY** [ Check if student  ]

**Current Position:**

Dates	Title	Institution	Department	Supervisor
-------	-------	-------------	------------	------------

**Prior Positions:**

Dates	Title	Institution	Department	Supervisor
-------	-------	-------------	------------	------------

**LIST YOUR PUBLICATIONS FROM THE PAST 5 YEARS** (List them in the same style as sample below).

**Sample:** Cheung, Stephen S., and Tom M. McLellan. Heat acclimation, aerobic fitness, and hydration effects on tolerance during uncompensable heat stress. *J. Appl. Physiol.* 84(5): 1731-1739, 1998.

**IMPORTANT INFORMATION:**

**Do not include a curriculum vitae or reprints.**

**Mail your application to:** Membership Services Department, The American Physiological Society  
9650 Rockville Pike, Bethesda, Maryland 20814-3991 (U.S.A.)

**Send no money now:** You will receive a dues statement upon approval of membership.

**Approval Deadlines:** Regular membership applications are considered for approval by the Council three times per year. Student and Affiliate membership applications are accepted monthly upon approval of the Executive Director of the Society.

**Questions? Call: 301-530-7171 ■ Fax: 301-571-8313 ■ E-mail: [members@aps.faseb.org](mailto:members@aps.faseb.org) ■ Web: [www.the-aps.org](http://www.the-aps.org)**