

SOCIETY FOR THE STUDY OF REPRODUCTION Newsletter

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From the President—

Hard work leads to a successful year for SSR

The 2004 Annual Meeting in Vancouver is rapidly approaching and looks like it will be our largest ever. More than 800 abstracts have been submitted, a 25% increase over previous years, and attendance is predicted to be at least 1,500. I am certain this is due not only to the beautiful location



for our meeting in Vancouver, British Columbia, but also to the wonderful program organized by John Nilson and his Program Committee. I therefore want to begin my report to the Society by thanking John for his incredible organizational skills and hard work, and to thank his committee not only for putting together a diverse program with stellar science but also for processing and evaluating the larger number of abstracts. It is our hope that each of the members of our Society will find the topics covered in the President's Symposium and Keynote talks of interest and will identify a number of minisymposia that relate to their specific area(s) of interest in the reproductive sciences.

We are indebted to Peter Leung and his hard-working Local Arrangements Committee for their willingness to host our meeting for a second time in 13 years. As our meetings grow, this is becoming an even more complex and time-consuming task. We are grateful to Peter and his committee for their commitment to the SSR.

The Society continues to aggressively seek outside support for our Annual Meeting in order to keep the costs to our members as low as possible. We submitted an application to the USDA Animal Reproduc-

tion Program and a noncompeting application to the NICHD requesting support for the Annual Meeting and trainee travel expenses. We await information regarding the funding of these applications. The Development Committee, under the able leadership of Ben Tsang, has worked tirelessly to secure outside support for our meeting this year as well as in future years. We are privileged to have support from the following partners. Johnson & Johnson Pharmaceutical Research and Development, LLC, will continue to provide funding for the Carl G. Hartman Award, as it has done every year since the award's inception in 1969. The Trainee Research Awards, initiated in 1977, will be funded by Serono (Serono Reproductive Biology Institute) for the 28th consecutive year. Serono (Serono Reproductive Biology Institute) will also fund the Distinguished Service Award, initiated in 1986, for the 19th consecutive year. NV Organon, Netherlands, will sponsor the SSR Research Award, first given in 1978; this is the second consecutive year that Organon has sponsored this award. Trainee travel and programs are supported, in part, by generous donations from the Lalor Foundation, the Robert Foote Lectureship Fund, the Larry Ewing Memorial Trainee Travel Fund, Canadian Institutes of Health Research, and the British Columbia Research Institute for Children's and Women's Health. We would like to thank Peter Leung, chair of the Local Arrangements Committee, for securing funding from the latter. This year we also have the first annual SSR New Investigator Award, sponsored by a generous donation from Virendra B. Mahesh, which was matched by SSR. We are very pleased to welcome Ferring Pharmaceuticals for their sponsorship of the President's Symposium; the President's Dinner for the Keynote, Presidential, and minisymposia speakers, *BOR* Editorial Board, and Editors; and some of the minisymposia. We are also pleased to welcome

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Serono Canada Inc. for their support of the President's Dinner and some of the minisymposia. Additional support is being provided by NIEHS (to fund two minisymposia and the CoRE booth), Charles River Canada, and Brinkman Instruments. We sincerely appreciate the efforts of the Development Committee as well as the continuing and new support from these partners.

The Awards Committee, chaired by Terry Nett, has been especially busy in the last couple of months identifying and organizing the presentations of the Trainee Research Awards finalists in consultation with Program Chair John Nilson. This committee also made the first New Investigator Award this year. I want to thank the members of this committee for their efficient conduct during this past year.

The first Trans-Atlantic Exchange Lectures between the SSR and the Society for Reproduction and Fertility (SRF) will be presented at our Annual Meeting this year. SSR's New Investigator Awardee will present at our meeting and at the 2005 SRF meeting, and the 2003 SRF Walpole Lecturer will present at our meeting in Vancouver. A similar exchange program is under negotiation with the American Society for Reproductive Medicine.

The ad hoc Strategic Planning Committee, chaired by Asgi Fazleabas, will present its final report to the Board this summer. Their initial report, which was presented to the Midwinter Board Meeting, made specific recommendations for the future of SSR pertaining to our journal, the Annual Meeting, the finances of the Society, outreach for membership, public affairs, and international membership. The Board was very impressed by the comprehensive and insightful suggestions put forth in this report. Following recommendations by the Senior Advisory Committee, the final report will be presented at the Summer Board Meeting.

As a result of the excellent work by Elizabeth McGee, chair of the Clinical Affairs Committee, in conjunction with Robert Rebar at the American Society for Reproductive Medicine, SSR will offer CME credits for the first time this year. Our goal is to attract clinicians who are interested in basic research in the reproductive sciences, including current holders of RSDP WHRH and Birch Fellowships from the NICHD. I thank Lisa McGee for her insight in attracting these physician-scientists into our Society.

The Education Committee, chaired by S. K. Dey, has developed a wonderful Techniques Workshop that includes state-of-the-art topics directed to the diverse SSR audience. Topics to be discussed include manipu-

lating mouse embryonic stem cells, genetic modifications of pigs, and conditional gene targeting approaches in mice.

The trainees continue to be vital and significant contributors to our Society. The topic for the Trainee Forum at the Vancouver meeting is bioethics. The Associate Director of the National Institute of Aging at the NIH will discuss such topics as authorship, conflict of interest, data management/sharing/falsification, and compliance with granting agencies. Trainees are encouraged to attend this important forum. The Trainee Affairs Committee also coordinates trainee travel awards by the Larry Ewing Memorial Trainee Travel Fund and the Canadian Institute of Health Research, designs and sells T-shirts at our Annual Meeting, and organizes and staffs the placement service.

Biology of Reproduction, under the strong leadership of Virendra B. Mahesh, continues to increase its impact factor. We will honor Virendra and his Editorial Board for their outstanding service at a dinner in Vancouver. On July 1 of this year, John Eppig and Mary Ann Handel will assume the helm as Co-Editors-in-Chief of *BOR* and, along with their new Associate Editors, are expected to continue to move *BOR* forward as the premier journal of the reproductive sciences.

Finally, I would like to thank Landis Keyes, Past-President of SSR, and Judith Jansen, SSR's Executive Director, for their guidance and mentoring throughout this year. I have been honored to be the President of this wonderful Society, and look forward to next year under the leadership of Joy Pate. I wish to thank each and every member of the Society who supported me this year and contributed to the success of our Society. I look forward to seeing each of you at our meeting in Vancouver. ■

—Mary Hunzicker-Dunn

SSR SPEAKER AT ICAR CHOSEN

Dr. Thomas Spencer of the Department of Animal Science, Texas A&M University, is SSR's Young Scientist delegate to the 2004 International Congress on Animal Reproduction (ICAR) to be held in Porto Seguro, Brazil, August 8–12. Tom will give a symposium presentation on "Conceptus signals for establishment and maintenance of pregnancy." The ICAR is held every 4 years, and the three sister societies in reproduction (Society for the Study of Reproduction, Society for Reproduction and Fertility, and Australian Society for Reproductive Biology) are each sponsoring a young scientist to present an invited paper at the 2004 ICAR.

Members elect new SSR leaders

The election of officers who will begin their terms in 2004 has been completed. The results are as follows: President-elect: *William Thatcher*; Secretary: *Dale (Buck) Hales*; Directors: *Andrew LaBarbera* and *John Nilson*. Congratulations are in order to these outstanding members of the Society. The Committee wants to recognize the other persons who agreed to run for office and who continue to serve the Society in other ways: Robert Burghardt, Michael Henson, Romana Nowak, and Thomas Spencer. The Committee also wants to thank every member who took the time to submit nominations. This is an important way to assure that the Society is moving in a direction that reflects the wishes of its members. Thanks also go to the members of the Nominating Committee: Andrzej Bartke, Fuller Bazer, Beverly Chilton, Thomas Curry, Jr., Norman Hecht, Martin Matzuk, Kelly Mayo, Janet Roser, and Milo Wiltbank. ■

—*Barbara Sanborn, Chair
Nominating Committee*



William Thatcher



Dale (Buck) Hales



Andrew LaBarbera



John Nilson

Report from the Society's Awards Committee

The Awards Committee recommended individuals to the Board of Directors for the major SSR awards in January. The Awards Committee extends its hearty congratulations to each of the awardees:

Carl G. Hartman Award – Dr. Fuller W. Bazer, Texas A&M University

SSR Research Award – Dr. Keith L. Parker, University of Texas, Southwestern Medical Center

SSR Distinguished Service Award – Dr. Anita H. Payne, Stanford University

SSR New Investigator Award – Dr. Thomas E. Spencer, Texas A&M University

The selection of individuals to receive Trainee Travel Awards has been completed and notifications will be made in the near future.

Competition for the oral and poster Trainee Research Awards is being handled differently this year than in the recent past. Based on the joint recommen-

dations of the Program Committee, the Awards Committee, and the Board of Directors, it was decided that the competition for these awards would be confidential. The reasoning was that everyone submitting an abstract for the competition would be encouraged to do the best job possible preparing for and presenting their abstract at the Annual Meeting if they thought they might be a finalist for these awards. Further, with the dramatic increase in the number of abstracts submitted for the Annual Meeting this year, using an entire session for student competition would have further limited the number of papers that could be presented in platform sessions. Thus, the competition papers will be included as part of the normal platform sessions again this year. The winners will be announced at the end of the meeting. ■

—*Terry M. Nett, Chair
Awards Committee*

New public affairs Web page now online

During the Society's 2003 Annual Meeting in Cincinnati, the Public Affairs Committee (PAC) established a major objective to develop a Web page on the SSR Web site that provides useful links to educational and research Web sites within our membership. The Committee has completed development of the public affairs Web page, which can be viewed by SSR members at <www.ansi.okstate.edu/ssr/>. The Committee's intent is to provide a Web site that includes links to research modules developed by members of the SSR and to other resources that provide information in a variety of areas in reproductive biology. Current topics include Neuroendocrine Systems, Cyclicity, Ovary, Testis, Fertilization, Assisted Reproductive Technologies, Implantation, Development, Pregnancy, Parturition, and Endocrine Disruptors. The Committee expects to continue to add information as the membership becomes aware of the Web page and begins to submit possible links for evaluation by the Committee. An e-mail link is included as a means to nominate sources of information.

The Web page includes a module for useful links concerning animal welfare and the use of animals in research. Selected links to animal use in research are also included in the educational module. In addition, a module was developed to provide articles concerning reproductive issues of concern and interest to the general public. Daniel MacPhee was instrumental in getting the first item for the public information module, an article about identification of reproductive genes by gene targeting strategies authored by Yi-Nan Lin and Martin M. Matzuk.

PAC would like to work with the SSR Program Committee in making available to the media and the general public short articles based on presentations presented at future Annual Meetings about important issues in reproduction. The Committee believes that the Web page will provide an excellent resource for finding information concerning all areas of reproductive biology. Responsibility for updating and adding links and articles to the site will continue to be one of PAC's major goals.

The Committee is continuing to develop an attractive brochure that can be used by SSR representatives to present our Society's contributions to human and animal health. A well-designed brochure describing accomplishments that research in reproductive biology has provided to improve human and animal well-being will be a great asset when SSR representa-

tives meet with senators, congressmen, and senior staff members to encourage support for NIH/NICHHD funding. Through development of our brochure and Web page, we will have accessible materials to provide a strong case for the difference our research makes in public health and well-being.

Dr. Thomas Spencer (SSR representative to FASEB) attended the FASEB Science Policy Committee meeting last August in Bethesda. Dr. Spencer represented the SSR membership and provided PAC with a summary of FASEB discussions on topics such as institutional and funding barriers identified by women scientists, animal research issues, stem cell and somatic cell nuclear transfer, Public Library of Science, and NSF and NIH funding. PAC recommends that the Society continue to oppose the Public Library of Science by having our members contact their representatives. PAC thanks Tom for his liaison work with FASEB and for keeping the Committee and the Society informed of issues concerning our membership. ■

—*Rodney D. Geisert, Chair*
Public Affairs Committee

CoRE minisymposium in Vancouver

To highlight the various ways that environment affects reproduction, the Committee on Reproduction and Environment (CoRE) intends to sponsor a minisymposium in this area at each Annual Meeting. This year, the topic is prenatal origins of female reproductive dysfunction.

To put this topic into perspective, we have come to recognize that the mammalian life span occurs in two environments. Most apparent is the macro-environment measured in miles about the terra firma, which is normally thought of in the sense of influencing free-ranging mankind's environmental health. Less well recognized is the microenvironment measured in centimeters of the intrauterine surrounding in which the embryo-fetus develops and resides for a short time. Exposures to insults in the microenvironment can be associated with diseases and disorders later in life. The rapidly developing hypothalamo-pituitary-gonadal (HPG) axis in utero is subject to programming by substances of both environments—from embryo/fetal origin, from the mother, and from the external world that pass through maternal-placental barriers either with or without modification. This programming occurs

during critical periods of maturation. The developing female is particularly vulnerable since many aspects of the HPG axis are developed as the default mode, and exposure to various types and amounts of sex steroids produces malprogramming.

In the 2004 CoRE minisymposium, three speakers will present these common themes from different perspectives in different species: brothers influencing sisters in utero (rat), ovarian dysfunction resulting from excess prenatal androgen exposure (sheep), and early programming of reproductive dysfunction based on clinical studies (human).

Perhaps with this wider realization of “environment,” one can think of the pregnant female in a different way than before in terms of the responsibility that she has in the development of a functional offspring fully capable of reproducing herself/himself. From a practical and economic view, it is clear that special consideration given to the pregnant female is highly cost-effective viewed against the subsequent treatment of preventable diseases of fetal origin, including those that affect reproduction. ■

—*Douglas L. Foster, Chair
Committee on Reproduction and Environment*

Trainee events at Annual Meeting

Before we discuss the great lineup of events planned for the Annual Meeting, we would like to congratulate our incoming trainee representative, Kimberly Barnett. As you all know, there was an astonishing number of candidates this year. We are delighted that so many trainees are interested in contributing to the Society in this way and hope you will all continue to be involved.

We hope to see many of our trainee members at the Annual Meeting in Vancouver in August. The Trainee Affairs Committee will be administering three different need-based travel grants this year for trainees presenting abstracts at the Annual Meeting. The registration booklet (available online) provides information on and application forms for these travel grants. The Larry Ewing Memorial Trainee Travel Fund is open to trainee members of the Society only, the Canadian Travel Fund is open to Canadian trainees only, and additional funds given by the British Columbia Institute for Children’s and Women’s Health are available to all trainees presenting at the meeting. We are grateful to our donors for supporting trainee travel so enthusiastically. To apply for any of these travel grants, you will need verification that you are presenting an abstract at the meeting. If you did not receive an e-mail verifying

your presentation, you can find this information at 199.245.200.45/authorcenter/?SOCIETY=ssr&YEAR=2004 by entering the submission number of your abstract.

Several great trainee activities are planned for the Annual Meeting. First, the Trainee-Mentor Luncheon will be held on Monday, August 2. A wonderful group of mentors from all areas of research have agreed to participate in this event. Approximately seven trainees will be seated with each mentor, so it is a great opportunity to enjoy a meal and conversation with a scientist whose research or experiences are of interest to you. Mentor lists will be sent out shortly to the participating trainees. Remember to respond early to ensure you can be seated with your first choice of mentor.

On Tuesday, August 3, the Trainee Forum will occur during the lunch break. We have a fantastic speaker lined up for this event, and I hope you will all plan to attend. Dr. Miriam Kelty from the National Institutes of Health will be leading a discussion on aspects of bioethics. Dr. Kelty worked with the commission that produced the 1979 Belmont report on ethical principles and guidelines for the protection of human subjects, chairs the NIH-wide Bioethics Interest Group, and maintains a Web site of bioethics resources for NIH (www.nih.gov/sigs/bioethics/). Bioethics is important to all of us, and this is a good chance to talk about problem areas like authorships and data sharing with an expert.

For those of you looking for your next job or postdoc position, the placement service will be open throughout the meeting. Drop by early and stop back often, as new jobs are posted throughout the meeting. We will be asking for trainee volunteers to run the placement service, so please consider helping us out! This will only take one or two hours of your time and is a great way to meet people and to get an idea of the job market.

Finally, we have a fantastic T-shirt design this year! Remember, the profits from T-shirt sales benefit trainee travel, and SSR T-shirts make a great fashion statement as well. If you have not already done so, stop by the external trainee Web site (linked from www.ssr.org/Trainees.html). A pdf of the 2004 shirt design and associated story are available from that site. In addition, we have created a gallery of images of past SSR T-shirts that is fun to look at. We still have some missing years, so if you have a good picture let us know! ■

—*Jennifer Bowen-Shauver and Ugur Salli
Trainee Affairs Committee*

SSR's Endowment Fund and the new Legacy Fund

The Endowment Fund was established in 1995 to sustain the long-term financial security of SSR and to enhance the Annual Meeting. Our goal is to raise one million dollars, which is our annual operating budget. Currently, the Endowment provides travel fellowships for trainees and foreign scientists, endowed lectures, and education programs. The Endowment is now at nearly \$400,000 and has been derived entirely from the Society and its members.

The Legacy Fund was established by SSR in 2004 specifically to convert back issues of *Biology of Reproduction* to an online version as well as to maintain and enhance this archive. Online access has dramatically accelerated the rate at which we can disseminate information and have access to new research. We are pleased to announce that full-text journal articles from 1993 onward have all been put online and are available at the *Biology of Reproduction* Web site (<www.biolreprod.org>). Our goal is to have all of the publications of *Biology of Reproduction* since its inception in 1969 electronically available, and the Legacy Fund will fund this endeavor.

You can contribute to the Endowment or Legacy Funds in one of several ways:

- ◆ by sending a check or money order directly to the SSR Business Office (see form in column on the right);

- ◆ by donating to SSR your honorarium obtained after giving an invited presentation;

- ◆ by donating the financial portion of an award.

Please remember the SSR Endowment and Legacy Funds and consider making a donation when you are invited to speak and receive a monetary award. Also, if you are organizing a reproductive biology meeting outside of SSR, please suggest the option to your invited speakers that they may donate their honoraria to the SSR should they so choose. You may contact the SSR Business Office or the Endowment Subcommittee for guidance.

Contributions to the SSR Endowment and Legacy Funds are a wonderful way that you can personally help ensure the growth and development of SSR for future generations of researchers! ■

—Janice Bailey, Chair
SSR Endowment Subcommittee
janice.bailey@crbr.ulaval.ca

To facilitate your contribution to either the Endowment Fund or the Legacy Fund, you can photocopy and fill in the form below. *Remember that the SSR is a 501(c)(3) corporation. Contact SSR's Executive Director for a copy of the IRS document that confirms the tax deductibility of your gift to the Society or the Endowment Fund.*

Please find enclosed my contribution to the (check one):

_____ Endowment Fund (used toward our goal of one million dollars to ensure the financial security of the Society)

_____ Legacy Fund (used specifically to pay for the electronic publication of *Biology of Reproduction* back issues)

Categories of recognition in future Newsletters and at the 2004 Annual Meeting:

Platinum	\$5000+
Gold	\$2500–\$4999
Silver	\$1000–\$2499
Bronze	\$250–\$999
Contributor	\$1–\$249

Mail along with your check or money order (in U.S. funds) to:

Society for the Study of Reproduction
1619 Monroe Street
Madison, WI 53711-2063

Scientists at Canadian workshop support SSR's Legacy Fund

The Endowment Subcommittee of the SSR's Development Committee received a welcome boost in its efforts to promote support for the Legacy Fund, which was established in 2004 to facilitate the conversion of back issues of *Biology of Reproduction* to electronically accessible form as well as to maintain and enhance this archive.

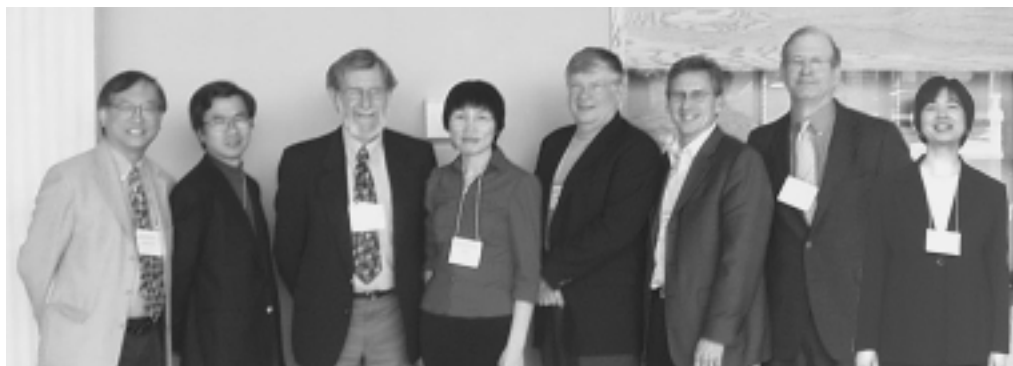
In response to a suggestion from Dr. Ben Tsang, chair of SSR's Development Committee as well as the Organizing Committee of the Canadian Workshop in Human Reproduction and Reproductive Biology held May 3–4 in Ottawa, speakers at the conference overwhelmingly supported the Legacy Fund by passing on their honoraria to the Society. Their efforts resulted in a generous contribution of \$1,800 Canadian to the Legacy Fund.

"This important initiative will benefit not only SSR members, but also the research community in reproductive sciences at large," said Dr. Dean Van Vugt, professor of obstetrics and gynecology, Queen's University, and president of the Canadian Fertility and Andrology Society, who also supported this effort.

"I am indeed delighted with this marvelous effort and, on behalf of the Society, thank Dr. Tsang and the speakers of this Workshop for their generous support of this important new initiative," added Dr. Mary Hunzicker-Dunn, SSR President.

The Endowment Subcommittee is hopeful that the generosity of these donors will encourage members of the Society to likewise support the Legacy Fund. ■

*—Ben Tsang, Chair
Development Committee*



Shown above are (left to right) Ben Tsang (University of Ottawa; Chair of SSR Development Committee), Kunio Shiota (University of Tokyo), Tom Kennedy (University of Western Ontario), Julang Li (University of Guelph), Gordon Whiteley (National Cancer Institute, NIH), Marc-André Sirard (Université Laval), Jerry Strauss III (University of Pennsylvania), and Chun Peng (York University).



Marc-André Sirard (right) presents a check for \$2,000 of behalf of the Centre de Recherche en Biologie de la Reproduction at Université Laval in Québec City, to Janice Bailey, chair of the SSR Endowment Subcommittee.

Institutional Animal Care and Use Committees

The Animal Care Committee (ACC) has drafted a statement describing the organization and function of Institutional Animal Care and Use Committees. The ACC welcomes comments by SSR members prior to the posting of this statement on the SSR Web site. Thank you.

—Barbara Durrant, Chair
Animal Care Committee
bdurrant@ucsd.edu

How are Institutional Animal Care and Use Committees (IACUCs) organized and how do they insure humane care and use of animals in research?

Introduction

In 1985, amendments to the Animal Welfare Act (AWA) mandated the appointment of an Institutional Animal Care and Use Committee (IACUC) at all institutions using animals for research. In addition, all IACUCs must comply with specific United States Department of Agriculture (USDA) and Public Health Service (PHS) policies on humane care and use of research animals.

Because the agencies and laws governing animal welfare are not uniform in their definition of the term “animal”, each IACUC must decide which species will be covered in their institution. The AWA, as amended in 1985, defines an animal as “any live or dead dog, cat, monkey (nonhuman primate mammal), guinea pig, hamster, rabbit, or any other warmblooded animal, which is domesticated or raised in captivity or which normally can be found in the wild state, and is being used, or is intended for use, for research, testing, experimentation, or exhibition purposes, or as a pet. Such terms exclude birds, rats and mice, and horses and other farm animals....” The PHS Policy on Humane Care and Use of Laboratory Animals defines an animal as “any live, vertebrate animal” Thus, the PHS definition of animals includes mice, rats, birds, reptiles and amphibians, which are omitted in the AWA. Individual institutions range in their working definitions of the term “animal”, from excluding mice, rats, birds, reptiles and amphibians to covering all species regardless of taxonomic classification. Most institutions use the PHS definition (live vertebrate animal) and include all animal use (instructional and research) in the purview of their IACUCs.

The IACUC interprets and implements Federal guidelines for the housing and treatment of animals involved in all research, teaching and demonstration activities. The Committee reviews all proposals or protocols and inspects facilities to ensure 1) the humane treatment of animal subjects, 2) that housing meets the physical and psychological requirements of the animals, 3) compliance with U.S. government animal welfare regulations. The approved IACUC proposal represents a contract binding researchers, students, animal care personnel, veterinarians and administrators to the guidelines for humane animal care.

How are IACUCs organized?

While each IACUC is tailored by and for the institution it serves, there are some unequivocal regulations governing all IACUCs, including the following:

Composition of the IACUC

The institution’s CEO is responsible for appointing the IACUC, which must have at least five members including:

1. a veterinarian with responsibility for all activities involving the institution’s animals;
2. a practicing scientist experienced in animal research;
3. a nonscientist;
4. a member not affiliated with the institution in any way other than as a member of the IACUC,

The number of IACUC members (over the minimum of five) is variable and is decided by each institution based on individual needs. There are no specific guidelines for the selection of an IACUC chairperson, but a veterinarian or scientist working at the institution chairs most IACUCs.

Function of the IACUC

Each IACUC must perform the following duties, regardless of the institution it serves:

1. review and approve all proposed projects involving animals, or significant changes to approved projects;
2. suspend animal research if it does not comply with the Animal Welfare Act, the *Guide for the Care and Use of Laboratory Animals*, the PHS Policy on Humane Care and Use of Laboratory Animals, or the institution’s own policy on animal care;
3. inspect all of the institution’s animal facilities at least once every six months;
4. review the institution’s program for humane care and use of animals at least once every six months;
5. submit reports of the facility inspections and program reviews to the Institutional Official (usually the CEO, president or director of the institution);
6. review concerns involving animal care and use at the institution;
7. make recommendations to the Institutional Official about the institution’s animal program, facilities or personnel training.

Most institutions also obtain an Animal Welfare Assurance approval from the PHS. Without this Assurance, no PHS conducted or supported activity involving animals will be permitted. The Assurance may be granted for a period of up to five years after approval of a detailed application describing the institution’s program for the care and use of animals in research, teaching and demonstration activities.

The scientific community at large provides further animal welfare oversight. Proof of IACUC approval of animal use is now required by nearly all funding agencies as part of the grant application process. In addition, virtually all scientific journals request a declaration of humane animal use in manuscripts submitted for publication.

How do IACUCs insure the humane care and use of animals in research?

As an IACUC performs the duties listed above, it monitors all activities involving animals. Each institution’s IACUC decides, in general terms, what kinds of projects are acceptable. This decision is based on the type of institution (biotech company, university, private research foundation, zoo, etc.), the species

required, and the opinions of the administration and staff. For example, some institutions do not approve terminal research (projects that require euthanasia of animals) while others allow it under specific circumstances when scientific information cannot be obtained otherwise.

Proposal review

Upon receipt of a proposal, the IACUC reviews each protocol to determine if the project conforms to the Institution's Assurance and meets these requirements:

1. Housing will be species-appropriate and contribute to the animals' health and comfort. Animal care will be directed by a veterinarian or scientist trained in proper care of the species being maintained for research.
2. Animal medical care will be provided by a qualified veterinarian.
3. Animal procedures will be performed by qualified and trained personnel.
4. Animal procedures will avoid or minimize pain, distress or discomfort to the animals.
5. Any procedures that cause more than momentary or slight pain will be performed with appropriate sedation, analgesia or anesthesia unless otherwise justified in writing by the PI.
6. Animals that will experience severe or chronic pain or distress that cannot be relieved will be euthanized during or after the procedure.
7. Methods of euthanasia will conform to the American Veterinary Medical Association Panel on Euthanasia.
8. The number of animals requested is appropriate to achieve the goals of the study.

To fulfill the last requirement, investigators must demonstrate that they have explored the use of alternative techniques that can be used in lieu of or in addition to traditional animal models. In some cases these techniques can entirely replace the use of more commonly used laboratory animals through the use of alternate living systems such as in vitro organ, tissue and cell culture, microorganisms, or plants. Nonliving systems such as chemical techniques and physical and/or mechanical methods may also eliminate the need for animal models, as can the use of computer simulation. If animals cannot be replaced in a protocol, the investigator is encouraged to reduce the number of animals used. Methods for accomplishing animal reduction include animal sharing, better quality animals, use of invertebrate species, and improved statistical design. Refinement of experimental techniques is highly desirable for the reduction of pain and distress to which an animal is subjected. Refined experimental protocols are less invasive, use improved instrumentation, improve the control of pain experienced by animals, and/or improved control of techniques. Training or conditioning animals to accept routine procedures reduces the distress animals may experience when subjected to unfamiliar handling. Likewise, optimal training and proficiency of animal handlers will reduce animal distress. The principles of Replacement, Reduction and Refinement are important guidelines for investigators as they prepare protocol proposals and for IACUCs as they review submitted proposals.

Each institution designs its own project proposal forms, which are periodically revised to reflect the issues relevant to animal use within each organization and to incorporate new government regulations.

Training

During the review of research proposals, the IACUC is charged with determining if personnel involved in animal care and use are properly trained and qualified. Although the research facility is technically responsible for training animal care personnel and scientists, the training program is often developed and administered by the IACUC.

Training must be designed to ensure that all personnel are qualified to perform, in a humane and scientific manner, the manipulations required in research projects involving animals. A general training program for all research personnel is required to provide instruction in research or testing methods that minimize the number of animals required to obtain valid results, and minimize animal distress. At most institutions, the IACUC and the PI share responsibility for assuring that research and animal care personnel working with animals are adequately trained. Training for specific procedures (such as animal anesthesia, surgery, blood collection, animal capture, implantation of tracking devices, etc.) are the responsibility of veterinarians, research personnel, veterinary technicians, and/or laboratory animal technicians.

Noncompliance

Each research facility must inform all personnel that they have the right to bring animal welfare concerns to the IACUC, and must clearly identify the communication pathway to be followed. Complaints may be received from within (institution staff and research personnel) or outside (public) the institution. Once notified, the IACUC is responsible for reviewing charges of animal mistreatment or deviations from approved protocols. If the charges are verified, the IACUC must suspend the activity until the noncompliance is corrected.

The USDA provides another level of compliance oversight. Each facility inspected by USDA must make IACUC records, research proposals, facility inspection reports and program reviews available to the inspector. Among all regulatory agencies, the USDA has the ultimate authority to close an animal facility for noncompliance by investigators and the institution.

Reporting

In addition to the in-house activities of the IACUC, the committee is required to report annually to the National Institutes of Health/Office of Laboratory Animal Welfare (NIH/OLAW). This report includes a current IACUC membership roster, dates of facility inspections and program reviews and any changes in either the program or the facilities. Any serious or continuing noncompliance issues must be reported to NIH/OLAW along with a description of the circumstances and the action taken to correct them.

Role of the scientific community

The scientific community at large provides further animal welfare assurance and oversight. Documentation of IACUC approval for all animal use is now required by nearly every funding agency as part of the grant application and approval process. In addition, virtually all peer-reviewed scientific journals request a declaration of humane animal use as a condition for considering manuscripts submitted for publication. By assuming these responsibilities, the broader scientific community helps to support the mission of IACUCs to self-regulate the care and use of animals for scientific purposes. →

References

This brief description of IACUC organization and function provides a general overview of the role and responsibility of this committee in a research facility. Additional specific, detailed information is available from the following references, which were used in preparing this statement.

Animal Welfare, Subchapter A of Animal and Plant Health Inspection Service, USDA 9 CFR Ch. 1 (1-1-85 Edition), U.S. Government Printing Office, 1985. <www.nal.usda.gov/awic/legislat/usdaleg1.htm>.

Animal Welfare Act (Title 7 U.S.C. 2131-2156), as amended by PL-99-198, December 12, 1986. <www.nal.usda.gov/awic/legislat/awa.htm>.

Essentials for Animal Research, A Primer for Research Personnel. B. T. Bennett, M. J. Brown, and J. C. Schofield, National Agricultural Library, Beltsville, MD, 1990. <www.nal.usda.gov/awic/pubs/noawicpubs/essentia.htm>.

Guide for the Care and Use of Laboratory Animals. U.S. Dept of Health and Human Services, PHS, NIH publication No. 86-23. <<http://www.nap.edu/readingroom/books/labrats>>.

Public Health Service Policy on Humane Care and Use of Laboratory Animals. National Institutes of Health, 1996. <grants2.nih.gov/grants/olaw/references/phspol.htm>.

The IACUC Handbook, edited by J. Silverman, M. A. Suckow, and S. Murthy. CRC Press, 2000. <www.crcpress.com>. ■

TECHNIQUES WORKSHOP

The Education Committee has organized the Techniques in Reproductive Biology Workshop to be held in conjunction with SSR's Annual Meeting at the University of British Columbia, Vancouver. The workshop, chaired by Dr. Sudhansu K. Dey of Vanderbilt University Medical Center, will be held from 8 a.m. to 11:30 a.m. on Sunday, August 1. Speakers will include Dr. Richard Behringer (M.D. Anderson Cancer Research Center), "Conditional genetic approaches in mice"; Dr. Randy Prather (University of Missouri), "Genetic modification of pigs for medicine and agriculture"; and Dr. Andras Nagy (Samuel Lunenfeld Research Institute), "Genetics of embryonic stem cells: Closing the gap between yeast and mouse."

—Sudhansu K. Dey, Chair
Education Committee

New Members

Regular

Alexander I. Agoulnik
Robert John Aitken
Henri Alexandre
Ignacio S. Alvarez-Miguel
Maria Caterina Baccari
Michele Boiani
Gary F. Clark
Daniel de Matos
Daniel A. Dumesic
John F. Engelhardt
Peter W. Farin
Alain Gougeon
H. Edward Grotjan
Shu Hashimoto
Anna Hrabia
Duraij Antony Jeyaraj
Dong Il Jin
Donglin Liu
Evelyn Tilly Maizels
Horacio Merchant-Larios
Aleksandar Rajkovic
Don Rieger
John C. Schimenti
Davor Solter
Yen-Jen Sung
Osamu Suzuki
Hong Mei Wang
Wei Yan
Koji Yoshioka
Guo-Zhang Zhu

Associate

John Alvarez
Kristin Hardymon
Hiroki Hirayama
Ji Hoon Jung
Esther N. Ofulue
Apichart Oranratnachai
Catharine A. Reinitz
David T. Schreiber, Jr.

Trainee

Hena Alam
Marianela Arias
Kelly Lyn Asquith
Brian Beres
Chad Blystone
John Bromfield
Amy G. Brown
Patience Browne
Paula Cameo
Nancy Carr
Yizhen Chen
Eva Czerwicz
Gabriel Davila
Geneva DeMars
Jodi L. Downs
Summer Dyer
Brian P. Enright
Jennifer Farmer
Sarah E. Fiedler
Maxfield Flynn

Ali A. Fouladi-Nashta
Danilo Franco
Vivian Galicia
Fataneh Ghafari
Arvind Gill
Danielle Glynn
Derek Gronlund
Katherine Hahn
Julia Halperin
Rebecca E. Howell
Daichi Kamada
Mutlu Kilciler
Suranga Pradeep
Kodithuwakku
Kevin Lee
Rita S. Leite
Dario R. Lemos
Qinglei Li
Bram V. Lutton
Jeffrey B. Mason
Ryann McFee
Jennifer K. Meyer
Anahid Mirzaton
J Shaik Mohamed
Erin L. Monaco
Amy E. Oakley
Toni Pak
Carl Peters
Tameka C. Phillips
Michael C. J. Quinn
Kathila S. Rajapaksa
Amy L. Reeder
Michelle Lynn Rhoads

Kaisa Selesniemi
Tristan Shankara
Evelyn S. Soriano
Diana Spencer
Sharron Stubbs
Koji Sugiyura
Xingshen Sun
Anna Swales
Paul Taylor
Bhanu Prakash V. L. Telugu
Brenda C. Timmons
Aida Erendira Ulloa
Lisa Vandermeer
Gretchen Vawter
Kirsty Walters
Finn-Arne Weltzien
Saeed Zeinoaldini

Change of status

To Regular:

Brent M. Bany
Shelley Cargill
Sherrie G. Clark
Gustavo F. Doncel
Zitao Liu

To Associate:

Loretta P. Mayer
Ana Vieira
Denise J. Zaczek

Report, and thanks, from editor of *Biology of Reproduction*

B*iology of Reproduction* has maintained its position as the top journal in the field. The Scientific Impact Factor for 2002 (July 1, 2000, to June 30, 2001) was 3.689. The number of citations was 15,812 in 2001 and 16,682 in 2002, which is the largest number ever reported for *BOR*. The number of manuscripts submitted to the journal continued to climb, with a 5.2% increase in 2003. The total increase in submissions has been 49.5% since the current editorial team took office. The marked increase in submissions is likely due to many reasons, but a potentially important one is the continued rapid turnaround time for the first decision, which currently is 22.1 days. The overall rejection rate is 49.9%, up from 34.9% at the start of the term of this editorial team.

As this will be last newsletter during the term of the current editorial team, the Editor-in-Chief and Associate Editor would like to extend our heartfelt thanks and gratitude to all who have submitted their best work to *Biology of Reproduction* and to our reviewing partners, the Editorial Board, and ad hoc reviewers. Without their ef-

Membership renewals are critical

Have you invited fellow colleagues or trainees to renew their membership or join SSR? If you did—many thanks! If you did not—it is not too late for 2004.

Last fall, our Membership Committee contacted regular members who did not renew their membership. We have focused on the renewal of regular members because it is generally expected that trainees are in labs of regular members who would instill in their trainees the importance of belonging to SSR. This approach was relatively successful in increasing the renewals of regular members. Several weeks ago, a letter and renewal form was sent under my name by the SSR Business Office to remaining regular members who had not renewed. During June, with the help of the SSR Business Office, the Membership Committee will contact regular members who have not renewed and ask them why they did not renew. The responses from this brief survey should be very informative to our Society in its strategic planning for the future. We welcome feedback/suggestions from you regarding membership in SSR. **Our Society needs to retain current members and add new members each year.**

A check of membership numbers on April 30, 2004, compared to June 30, 2003, indicates that **we are down 140 regular members, 167 trainees, and 23 associates, and are up 13 emeriti.** It is very possible that membership counts on June 30, 2004, could be close to last year's numbers if the current SSR members who have not renewed do renew or if you can help us by inviting your colleagues to either renew or join. We still have time to make this year an all-time winner!!! ■

—Janice Bahr, Chair
Membership Committee

orts, the journal could not have achieved the eminent position it holds today. We wish the new editorial team every success, and express our sincere thanks to all for allowing us to serve the Society and its members in such a meaningful way. ■

—Virendra B. Mahesh
Editor-in-Chief

Message from new *BOR* editors

On July 1, 2004, the *BOR* Editorial Office will migrate from Augusta, GA, to Bar Harbor, ME. All SSR members, and indeed all those working in the field of reproductive biology, thank Virendra Mahesh for his outstanding service as Editor-in-Chief. *BOR* has made tremendous strides under his leadership, manifest in improved quality of the journal and higher impact factor rating, impressive success of the BenchPress system for managing manuscripts and electronic publishing with HighWire Press, and reduced time to first decision on manuscripts.

The new Co-Editors-in-Chief as of July 1 will be John Eppig and Mary Ann Handel. Papers or revisions submitted to *BOR* before July 1 will be handled by the Augusta office while all manuscripts submitted after July 1 will be handled by the Bar Harbor office, as will revised versions of manuscripts originally submitted before July 1.

The overall review strategy for papers submitted to *BOR* will change with the transition to the new office. These changes are designed to target appropriate reviewers for each paper. After a paper is received by the Editorial Office, the Editors-in-Chief will designate an Associate Editor to handle its review, including selection of reviewers. The following individuals have agreed to serve as Associate Editors: Fuller Bazer, John Davis, Mitch Eddy, Keith Latham, Sue Moenter, Sally Perreault-Darney, JoAnne Richards, Bernard Robaire, Richard Schultz, and Doug Stocco. We think you will agree that we are most fortunate to have such a distinguished group.

We realize that our responsibility to you, SSR, and the community of reproductive biologists is great, but we look forward to the challenge of continuing to increase the impact of *BOR* and its position as the top journal in the field of reproductive sciences. We hope that you will think of *BOR* as the best place to publish your most exciting results. ■

—John Eppig and Mary Ann Handel

News from the Reproductive Sciences Branch, NICHD

NICHD Budget. Congress passed and the President signed the appropriations bill for NIH on January 23, 2004. For the NICHD, the FY 2004 appropriation will provide a total of \$1.242 billion, for an increase of 3.1 percent over the FY 2003 appropriation; this is well below the rates of increase during the previous 5 years, which have ranged from 9 to almost 15 percent. The NICHD projects support of approximately 417 new and competing grants with its appropriation. This has translated to percentile paylines for Research Project Grants (RPGs; R01s, R03s, P01s) for NICHD and other NIH institutes/centers well below those of recent years.

Dual Grant Assignment to Other NIH Institutes/Centers. Based on early indications regarding the FY 2005 budget request for NIH, it looks like another challenging year for funding lies ahead. As such, if you would like to request secondary assignments of your grant proposal to other institutes/centers if the scientific area is relevant to the mission of those institutes/centers, you can do this by submitting a cover letter to this effect with your grant proposal. By so doing, it may be possible to transfer your application to another institute/center should NICHD be unable to fund the application. Please do not contact the other institute/center. If the primary assignment of your application is to NICHD, please contact your Program Official at NICHD to request that your proposal be transferred. However, there is no guarantee that the other institute/center will accept the application for payment.

New Study Sections to Meet in June/July. Most of you are now aware that the initial meetings of the newly reorganized study sections belonging to the Endocrinology, Metabolism, Nutrition and Reproduction Integrated Review Group (EMNR IRG) in the Center for Scientific Review (CSR) will be held this spring/summer. Dr. Phyllis Leppert has written a timely and helpful synopsis of the process used in this reorganization effort (P. C. Leppert, 2004, "The changing face of peer review at the National Institutes of Health," *Fertility and Sterility* 81:279-286). Descriptions of the research areas covered by each study section and provisional rosters for these study sections can be viewed at <www.csr.nih.gov/Review/emnrirg.htm>. (Rosters for the complete list of study sections are available at <www.csr.nih.gov/Roster_proto/sectionI.asp>.) Please

take the time to view these rosters and areas. One of the objectives of the CSR reorganization efforts was to have several study sections be suitable for review of a specific grant proposal, thereby providing a choice for investigators to request assignment to a particular study section. A request for assignment to a particular study section can be made by attaching a cover letter to your grant proposal.

Dr. Leppert's article also covers the reorganization of the NICHD's Division of Scientific Review which has resulted in the formation of seven subcommittees. These subcommittees generally review program projects, center grants, training grants, career development awards, and R03 small grant awards.

New Program Announcement. A new Program Announcement (PA) has been published entitled Endometrial Cell Function (<grants.nih.gov/grants/guide/pa-files/PA-04-056.html>). This PA is intended to increase our knowledge of (1) how the sloughed endometrial fragments in menstrual flow become adhesive, invasive, and proliferate in ectopic sites; (2) what molecules are involved in adhesion, invasion, and proliferation of endometrial cells at ectopic sites; and (3) what function of ectopic endometrial tissues results in pain and other adverse effects including infertility. For more information on this PA, contact Dr. Koji Yoshinaga at 301-435-6992 or <ky60@nih.gov>. ■

—*Louis V. DePaolo, Director
Reproductive Neuroendocrinology Program*

From the Bylaws Committee

In preparation for the Annual Meeting, the Bylaws Committee has reviewed the Society's bylaws and responded to requests from the Board of Directors to evaluate conformity of current operating procedures with guidelines provided in the bylaws. Likewise, the Committee encourages all Society members to report to the Committee any discrepancies, conflicts, or required updating within the bylaws so that they reflect the activities and mission of the Society. ■

—*Sherrill Echterkamp, Chair
Bylaws Committee*

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