

## WELCOME TO OMAHA!



**Shyamal K. Roy, Ph.D.**  
Chair, Local  
Arrangements Committee

Dear Colleagues and Friends:

On behalf of the Local Arrangements Committee, I welcome you to our great city of Omaha and our outstanding convention facility, Qwest Center Omaha! The 39<sup>th</sup> Annual Meeting of the Society for the Study of Reproduction promises a rich scientific environment in an outstanding facility. The objective is to provide you the best possible meeting arrangements and allow you to take advantage of our great Midwestern hospitality. In the spirit of SSR, I hope you take the opportunity to renew friendships, make new friends, debate current science, and return home with new and exciting ideas to advance your research in the reproductive sciences. I also hope that you take advantage of all that the Omaha community offers to make your stay enjoyable. This is our society, and I urge you to maximize the opportunities provided by SSR in your quest for new knowledge, scientific achievement, and fun.

## GENERAL INFORMATION

For up to date information on the 2006 Annual Meeting, please visit the SSR website  
<http://www.ssr.org/Meetings.html>

### REGISTRATION

#### Registration Fees

Payment of registration fees is required to participate in the meeting. Registration covers attendance at all scientific sessions, the Welcome Reception on Saturday evening, continental breakfasts, refreshment breaks, and a meeting portfolio. Registration fees are discounted for SSR members and for early payment. Each trainee (member and nonmember) registrant must obtain his/her mentor's signature on the registration form to qualify for the trainee/student rate. If you have a question about SSR membership or about the status of your membership in SSR, please contact the Business Office (tel: 608-256-2777; fax: 608-256-4610; email: <ssr3@ssr.org>).

Membership fees must be paid at the time of registration. Registration options are as follows: online (follow the annual meeting link on <http://www.ssr.org>), with payment by check in U.S. dollars drawn on a U.S. bank, travelers' checks or international money order in US dollars or by Bank Transfer (please note that an additional USD \$25 is applied to all bank transfers). Purchase orders are not accepted.

Registration Category	Through June 16	After June 16
<i>SSR Members</i>		
Regular and Associate	\$325.00	\$400.00
Trainee	\$225.00	\$300.00
<i>Nonmember</i>	\$475.00	\$550.00
<i>Nonmember Trainee*</i>	\$325.00	\$400.00

\*Nonmember trainees will need to submit a signed statement from their major professor or mentor with their registration to qualify for the trainee discount.

#### Confirmation and Receipts

Preregistration will be confirmed by email for those registrants who provide an email address. Registration packets will be distributed at the SSR's Registration Desk at the meeting, on the 2<sup>nd</sup> floor of the Hilton Omaha. The registra-

tion packet will contain a receipt of payment, name badge, and tickets for special purchases.

#### Cancellation and Refund Policy

Meeting registration will be refunded in full only for cancellations received in writing on or before July 14, 2006. Cancellations received after July 14 and before July 28 will be subject to a US \$75.00 service charge. No refunds will be issued for cancellations received on or after July 28, 2006. Refund checks will be issued four weeks after the meeting. The SSR registration desk, located on the 2<sup>nd</sup> Floor of the Hilton Omaha, will be open during the following hours:

Saturday, July 29	9:00 a.m.–6:00 p.m.
Sunday, July 30	7:30 a.m.–5:00 p.m.
Monday, July 31	7:30 a.m.–5:00 p.m.
Tuesday, August 1	7:30 a.m.–5:00 p.m.

#### ACCREDITATION STATEMENTS

**ACCME.** This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of the American Society for Reproductive Medicine (ACCME) and the Society for the Study of Reproduction (SSR). The ASRM is accredited by the ACCME to provide continuing medical education for physicians.

**AMA.** The American Society for Reproductive Medicine designates the 39<sup>th</sup> Annual Meeting of the Society for the Study of Reproduction for a maximum of 28 AMA PRA Category 1 credits<sup>™</sup>. Each physician should claim only those credits that he/she actually spent in the educational activity.

**ACOG.** The American College of Obstetricians and Gynecologists has assigned 26 cognate credits to this program.

#### NEEDS ASSESSMENT AND COURSE DESCRIPTION

Biomedical researchers are advancing the frontiers of reproductive biology through the discovery of new approaches to regulation and manipulation of human and animal cells.

The translation of knowledge of basic reproductive processes into the development of novel therapies for human reproductive disease requires that healthcare professionals continuously update their knowledge of human and animal reproduction. The Annual Meeting of the Society for the Study of Reproduction (SSR) brings basic and clinical researchers in reproductive biology and medicine together in a collegial atmosphere that enables them to exchange scientific information and further advance our understanding of reproduction and development.

The SSR Annual Meeting will provide basic scientists, clinical researchers and physicians in the area of reproductive medicine and biology with advanced training in cell signaling in reproductive organs, developmental biology and implantation of early embryos, and application of animal models to cloning and stem cell research. Lecturers will focus on the impact of nutrition and energy homeostasis on reproduction. Participants will learn how to optimize communication of their research findings to the scientific and lay communities.

### LEARNING OBJECTIVES

At the conclusion of this activity, the participant should be able to:

1. Explain how reproductive processes are impacted by alterations in nutritional status, metabolism and energy balance.
2. Summarize recent advances in cloning and stem cell technology.
3. Compare and contrast molecular signaling pathways in cells of different reproductive organs.
4. Describe the cellular sequence of events in fertilization, embryonic development and blastocyst implantation.
5. Devise strategies for effective communication of new scientific discoveries.

### SCIENTIFIC SESSIONS

#### Keynote Address

The Keynote Address, "Nuclear Reprogramming and the Fetal-Maternal Dialogue," will be delivered by **Jean-Paul Renard, Ph.D.** (Unite de Biologie du Developpement, INRA, Joy en Josas, France), on Saturday afternoon, from 3:30 to 4:30 p.m., in the North Ballroom of the Qwest Center Omaha, immediately following the Opening Ceremony and Awards Presentations.

#### President's Symposium

The President's Symposium, "Nutritional Regulation of Reproductive Function," will take place in the North Ballroom of the Qwest Center Omaha on Sunday afternoon, from 4:15 to 6:15 p.m. **Pushpa S. Kalra, Ph.D.** (Department of Physiology and Functional Genomics, University of Florida, Gainesville, FL), will speak on "Energy Homeostasis and Reproduction: The Neuropeptide Connection," and **Robert Webb, Ph.D.** (University of Nottingham School of Biosciences, Loughborough, Leics., UK), will discuss "Nutritional Impact on Female Reproductive Function: From Genetics to Metabolomics."

### Plenary Lectures

Plenary Lectures will be held in the North Ballroom of the Qwest Center Omaha. On Sunday morning, at 11:15 a.m., **Olivia P. Judson, Ph.D.** (Imperial College at Silwood Park, Ascot, Berks., U.K.), will speak on "The Evolutionary Biology of Pregnancy." On Tuesday morning, at 11:15 a.m., **John D. Gearhart, Ph.D.** (Johns Hopkins University School of Medicine, Baltimore, Maryland), will speak on "Embryonic Stem Cells." On Tuesday afternoon, at 3:30 p.m., three speakers will present "Taking Your Science to the People: Media 101 for Reproductive Biologists." **Amy Kostant, Director** (EMS/Science Communication Network), will speak on "The Special Role of Scientists in Talking with the Media." **Elizabeth Weise, Science Reporter** (USA Today), will speak on "What Reporters Need from You to Report Your Findings Fairly and Accurately." **John D. Gearhart, Ph.D.** (Johns Hopkins University School of Medicine, Baltimore, MD), will speak on "Baptism by Fire: What You Learn When Your Research Suddenly Becomes Newsworthy."

### Minisymposia

Five concurrent minisymposia will be held in meeting rooms 201–206 on the Meeting Room Level of the **Qwest Center Omaha** on Sunday, Monday, and Tuesday mornings from 9:30–11:00 a.m. Each minisymposium focuses on a topic or area of emerging interest.

#### Trainee Affairs Lunch & Forum: Strategic Careering in the 21<sup>st</sup> Century

The Trainee Affairs Lunch & Forum will be held on Monday, July 31, from 12:00 to 1:30 p.m., in Room 204 of the Qwest Center Omaha. The speaker at this year's forum is **Howard G. Adams, Ph.D.** (H.G. Adams & Associates, Inc., Norfolk, VA). The forum is open to all attendees of the annual meeting. **Please purchase a box lunch on your pre-registration form and plan to attend the forum. Pre-purchased box lunches may be picked up in Exhibit Hall A of the Qwest Center Omaha and taken into the forum.**

#### Minority Affairs Symposium

On Monday evening, July 30, from 8:00 to 9:00 p.m., **John Parrish, Ph.D.** (University of Wisconsin, Madison, WI) will discuss the experience of minority students who start in small minority institutions and then move to larger universities. Professor Parrish's symposium topic will be "Challenges to Succeed in the Absence of Diversity." The symposium will be preceded by an invitation-only dinner. The symposium is open for all interested trainees and members. Established scientists are encouraged to meet and speak with trainees.

#### Platform Sessions

Platform presentations will be held in rooms 201–206 and 210–211 of the Qwest Center Omaha. Six simultaneous sessions will be held in these rooms daily (check the schedule of events for start times). Only PowerPoint presentations will be accommodated (e.g. no slides or overheads).

Complete instructions for uploading PowerPoint presen-

tations will be emailed to each presenter. The email will contain a link to the site to upload each presentation.

To avoid confusion, name your saved presentation with the following format:

PRESENTER LAST NAME\_SESSION NUMBER\_PRESENTATION NUMBER.pps

Upon arrival, all speakers should review their presentations in the **Slide Preview Room** (Qwest Center Omaha, Room 209) located on the Meeting Room Level of the Qwest Center Omaha. This room will be staffed by trained personnel available for assistance should technical difficulties arise. Speakers may modify their presentations up to 24 hours prior to the scheduled session.

Depositing talks on the Web site on or before July 22nd will allow SSR staff to pre-flight all presentations. Presentations delivered after that time, either on the site or through a technician in the Slide Preview Room, cannot be pre-tested and therefore cannot be assessed for technical flaws. **Thus, it is strongly recommended that presentations be submitted on or before July 22nd, especially those from Mac users since all master computers will be running Windows XP.**

**Special instructions regarding fonts:** A presentation created on a computer that uses one set of fonts may not look the same on another computer that has different fonts. To solve this problem, save the fonts or embed them in the presentation:

- On the File menu, click 'Save As'
- Click 'Tools', and then click 'Embed TrueType Fonts' (in Word, click 'Tools,' then 'Save Options,' then click 'Embed TrueType Fonts')

You can embed any TrueType font that comes with Windows. Other TrueType fonts can be embedded only if they have no license restrictions. If a font cannot be embedded (for example, it is not marked as being editable or installable) a message will appear that explains why. Note that saving a presentation with embedded fonts will increase the file size of your presentation.

Although fonts can be embedded, we recommend using only fonts that come with and are supported by Windows XP to ensure that slides retain their original look.

**Presentation tips:** Each screen should have a single, clear purpose, tell a unified story, and be understood readily. Each should have a simple, uncluttered format and be free of non-essential information.

To ensure legibility from the back of a large room, the height of the smallest figure should be not less than 5% of the height of the projected image. Another good rule is that the projected image should be legible when viewed from a distance of 10.5 times its width. Use modern bold type and double spacing. Use a dark-colored background and light-colored type. Avoid using red and green together; colorblind people cannot distinguish between the two. Avoid using 3-dimensional bar charts unless 3-dimensional information is being presented.

The best 10-minute talks use an average of six to seven screens. Use duplicates or hyperlinks if an image is referred to more than once. A timed rehearsal is recommended.

PowerPoint presentations may be previewed in the **Slide Preview Room** (Qwest Center Omaha, Room 209) located on the Meeting Room Level of the Qwest Center Omaha from 9:00 a.m.–6:00 p.m., Saturday, July 29; from 7:30 a.m.–5:00

p.m., Sunday, July 30; from 7:30 a.m.–5:00 p.m., Monday, July 31; and from 7:30 a.m.–5:00 p.m., Tuesday, August 1.

## Poster Sessions

Poster sessions will be held in Exhibit Hall A of the Qwest Center Omaha on Sunday, July 30, from 7:30 a.m.–9:30 a.m.; Monday, July 31, 7:30 a.m.–9:30 a.m.; and Tuesday, August 1, 7:30 a.m.–9:30 a.m. **All posters must be mounted between 2:00 p.m. and 6:00 p.m., Saturday, July 29, and remain in place for the duration of the meeting.** Posters must be removed by 2:00 p.m., Tuesday, August 1.

Approximately one third of the posters will be presented each day. Poster numbers begin with #181. Posters numbered 181, 184, 187, etc., will be presented on Sunday; posters numbered 182, 185, 188, etc., will be presented on Monday; posters numbered 183, 186, 189, etc., will be presented on Tuesday.

Posters must not exceed 3.5 feet by 3.5 feet (1.06 m by 1.06 m) and can be mounted with push pins or velcro. Abstract numbers will be indicated on the poster boards. Please check the itinerary in the program and the meeting newsletter for updates.

Posters should include the title of the abstract and the name(s) and affiliation(s) of the author(s). Charts, drawings, slides, and illustrations may be similar to those used in making slides, but with bolder, heavier figures. They should be readable from distances of 4 feet or more. Color may be used to add emphasis. Keep illustrative material simple. Hand-lettered material should contain appropriate heavy lettering at least 3/8" high. Please use large type for all text. When feasible, use graphs to demonstrate qualitative relationships and tables for presenting precise numerical values. If possible, photographs should be on matte, not glossy, paper. Brief "Introduction" and "Conclusions" sections are helpful.

## SPECIAL FOR TRAINEES

### Lalor Foundation Merit Awards, USDA NRI Merit Awards, SSR Trainee Research Awards, and Burroughs Wellcome Awards for Minority Faculty and Trainees

Recipients will be recognized during the Closing Ceremony on Tuesday, August 1, in the North Ballroom of the Qwest Center Omaha.

Winners of the **Lalor Foundation Merit Awards** (supported by the Lalor Foundation) are selected on the basis of abstracts submitted for presentation and evaluated according to the following criteria: scientific merit, interpretation and impact of the results, and clarity of the abstract. Sixteen presenters will receive a Lalor Foundation Merit Award of US \$500.

Recipients of the **USDA NRI Merit Awards** (supported by a grant from the USDA National Research Initiative) are selected on the basis of abstracts submitted for presentation and evaluated according to the following criteria: meets the NRI goal of benefiting or enhancing our understanding of reproduction in agriculturally important species, scientific merit, interpretation and impact of the results, and clarity of the abstract. Ten presenters will receive a USDA NRI Merit Award of US \$500.

Finalists for the **SSR Trainee Research Awards** (sustaining support provided by Serono Reproductive Biology Institute), will be recognized at the Opening Ceremony, at

3:00 p.m. on Saturday, July 29 in the North Ballroom of the Qwest Center Omaha. All finalists will present their research reports during the regular poster and platform sessions beginning Saturday, July 29 through Tuesday, August 1. The Awards Committee will evaluate the finalists' presentations according to the following criteria: (1) merit of the study, (2) presentation format, (3) delivery, (4) visual aids, and (5) response to questions during discussion. From these finalists, the Awards Committee will select First, Second, and Third prizes to be awarded during Tuesday's closing ceremony to the three best poster and three best platform presentations.

#### **Larry Ewing Memorial Trainee Travel Fund**

The Larry Ewing Memorial Trainee Travel Fund (LEMTTF) provides travel assistance for Trainee Members of the Society to attend and present their research results at the Annual Meeting. The LEMTTF is administered by the SSR Trainee Committee and is supported by a grant from the NIH/NICHHD; by donations; and by the sale of commemorative t-shirts at each annual meeting. To qualify for a grant from the LEMTTF, an applicant (1) must have been a paid-up Trainee Member of SSR by February 15, 2006; (2) must be the presenting/first author of an abstract accepted for presentation (poster or slide) at the Annual Meeting; and (3) must complete and submit an application for a travel grant. The application **MUST** be accompanied by a copy of the SSR abstract acceptance notification. To request a travel grant from the LEMTTF, go to the SSR Web site online, or contact the Business Office.

#### **Placement Service**

The SSR Placement Service provides a vehicle for introducing potential candidates to potential employers seeking to fill predoctoral, postdoctoral, industrial, technical, and faculty positions. No attempt is made to match candidates with positions, nor to arrange interviews. Position announcements posted at the Annual Meeting are transferred to the FASEB Career Resources online listing. This service is free of charge. The Placement Service will be located in Room 207 on the Meeting Room Level of the Qwest Center Omaha. The room will be staffed on Sunday, Monday, and Tuesday from 7:30 a.m. to 5:00 p.m. A bulletin board, files for resumes and job announcements, and a copier will be available. To obtain a form, go to the SSR Web site online at <http://www.ssr.org/TraineeMtgInfo.html>, or contact the Business Office.

#### **Trainee-Mentor Luncheon**

The Trainee-Mentor Luncheon will be Sunday, July 30, from 12:00 to 1:30 p.m., in the St. Nicholas Room of the Hilton Omaha (connected by walkway to the Qwest Center Omaha). This Trainee-organized event provides Trainee participants with the opportunity to talk to an SSR scientist about careers and science over a catered lunch. To participate, trainees must mark the appropriate box on the registration form, include payment of \$15.00, and complete the online registration process as soon as possible to ensure that each can have lunch with the mentor of his/her choice. The information is also available online at <http://www.ssr.org/TMLuncheon.html>. Seating for 175 trainees will be assigned on a first-come, first-served basis. Once the list is filled, reg-

istrants will be placed on a waiting list with notification of that status. Should openings occur, names will again be taken from the waiting list in order of the earliest to the latest requests received. If you have any questions about this event, please contact the luncheon organizer: **Chrissy Schilling, University of Maryland, Phone: 410-706-5003, Fax: 410-706-1503, email: [cschi001@umaryland.edu](mailto:cschi001@umaryland.edu)**.

#### **T-Shirts**

T-shirts commemorating SSR 2006 in Omaha, Nebraska will be sold to raise money for the Larry Ewing Memorial Trainee Travel Fund (LEMTTF). The t-shirts are of high quality, pre-shrunk cotton, and come in a variety of sizes (including children's sizes). A student competition was initiated for the t-shirt design, which shows a large map of Nebraska on the back and a small logo on the upper left chest. T-shirts may be ordered on the online pre-registration form or purchased at the meeting. The price is US \$15 for adult sizes and US \$12 for children's sizes.

### **FOOD SERVICES**

#### **Breakfasts**

Continental breakfasts will be served in Exhibit Hall A of the Qwest Center Omaha, site of the posters and exhibits, from 7:30–9:30 a.m. Sunday, Monday, and Tuesday mornings.

#### **Box Lunches**

Box lunches must be purchased in advance at a cost of US \$15.00 on the on-line pre-registration form. Box lunches will be distributed in Exhibit Hall A of the Qwest Center Omaha, site of the posters and exhibits, from 12:00 to 1:30 p.m. on Sunday and Monday, and from 12:00–1:00 p.m. on Tuesday. Those attendees participating in the Trainee-Mentor Luncheon on Sunday, July 30, should not purchase a box lunch for that day.

#### **Refreshments**

Afternoon refreshment breaks are scheduled from 3:30–4:00 p.m. on Sunday and Monday in Exhibit Hall A of the Qwest Center Omaha, and from 3:00–3:30 p.m. on Tuesday in the pre-function area of Exhibit Hall A.

### **SOCIAL EVENTS**

#### **Opening Reception**

The opening reception will take place on Saturday evening, July 29, from 7:00 to 10:30 p.m., at the world-class Henry Doorly Zoo. Shuttle buses will transport attendees from the pick-up station in front of the Hilton Omaha. The Henry Doorly Zoo has the world's largest indoor rain forest, desert and nocturnal exhibits, a world-class aquarium, orangutan forest, IMAX theater and much more. Shuttles will begin leaving for the zoo from the Qwest Center Omaha beginning at 5:00 p.m. that evening. Once guests arrive, they may roam the zoo grounds on their own. The zoo will be closed to the public at 6:00 p.m. Food will be served at locations around the zoo grounds from 7:00–9:00 p.m., with soda and bottled water stations available. Southwestern cuisine will be avail-

able in the “Desert Dome,” sea food and vegetarian cuisine will be available in the “Scott Aquarium,” Italian cuisine will be available in the “Hubbard Gorilla Valley,” and Asian cuisine will be served in the “Lied Jungle.”

### Barbecue and Social

The traditional SSR barbecue and social is scheduled for Tuesday evening, August 1, from 6:30 p.m. to 12:00 a.m. in the Peter Kiewit Grand Ballroom at the Qwest Center Omaha. Located near the heart of downtown Omaha, the Qwest Center overlooks the beautiful Missouri River and Riverwalk, one of the landing sites of the famous Lewis & Clark Expedition. The barbecue will feature smokehouse baby back ribs, garlic- and chili-rubbed chicken, vegetarian entrees, and an assortment of delicious desserts. There will be a two-hour hosted open bar serving beer and wine between 6:30 p.m. and 8:30 p.m., after which these beverages may be purchased. Water and soda will be served at no charge all evening.

After dinner, from 9:00 p.m. to midnight, get ready to dance to the music of “On the Fritz.” For two decades, On the Fritz has been one of the most popular bands in the Omaha area, playing from an expansive list of great rock n’ roll hits from the seventies to now. Tickets for this event are US \$35 each.

### QWEST CENTER ALCOVE

The Qwest Center Omaha Alcove will be available for staff from NIH, NSF, USDA, FDA, and other funding agencies to interact with meeting attendees. Meeting attendees are encouraged to make appointments to discuss grant applications and grants management with representatives of the funding agencies.

### PRESS RELATIONS AND NEWS COVERAGE

The Society encourages news coverage of the meeting and will assist participants and the media in reporting current research discoveries in the reproductive sciences. Please contact the SSR Business Office (1619 Monroe Street, Madison, WI 53711–2063, tel: 608-256-2777; email: <ssr@ssr.org>) for more information.

### COMMERCIAL EXHIBITS

Commercial exhibits will be located in Exhibit Hall A at the Qwest Center Omaha, together with the poster displays. Exhibits will be open Sunday and Monday from 7:30 a.m. to 5:00 p.m., and on Tuesday from 7:30 a.m. to 12:30 p.m., and at other times by appointment. To receive an exhibitor’s information packet, please contact the SSR Business Office, 1619 Monroe Street, Madison, WI 53711-2063 (tel: 608-256-2777; email: <ssr2@ssr.org>).

### CORPORATE SPONSORSHIP AND EXHIBIT OPPORTUNITIES

SSR is actively seeking educational grants for scientific sessions, social events, general program support, and exhibitions. Join us at this exciting meeting and confirm your corporate commitment to the highest standards of research in reproductive biology.

Meeting support will be recognized in all announcements

for the meeting, in the program book, and on prominently displayed signs outside the meeting and event rooms. Vendors will have face-to-face contact with the people who have the purchasing authority for their products and services. Please know that we will be happy to work with anyone who wishes to sponsor an event, bring an exhibit, or send materials to the annual meeting this summer. For details contact the SSR Business Office, 1619 Monroe Street, Madison, WI 53711-2063 (tel: 608-256-2777; email: <ssradmin@ssr.org>).

### CUSTOMS AND IMMIGRATION

Canadian citizens can usually cross the border into the U.S. without difficulty. However, visitors must carry identification, such as a passport or birth or naturalization certificate, as proof of citizenship. A driver’s license is NOT accepted as proof of citizenship. For more information, please check these sites:

<http://www7.nationalacademies.org/visas/>

All other international visitors require a valid passport, and some visitors may need a tourist visa. Be sure to consult the embassy or consulate in your own country well in advance of travel to ensure that the appropriate documentation is obtained.

We encourage scientists planning to attend the SSR Annual Meeting to apply for a visa as EARLY AS POSSIBLE. The SSR Office will provide letters of invitation to help you make travel arrangements. If you need a letter of invitation to the SSR Annual Meeting, please contact the SSR Office at [ssr3@ssr.org](mailto:ssr3@ssr.org)

### ACCOMMODATIONS

The Local Arrangements Committee has reserved blocks of rooms at several hotels within walking distance of the Qwest Center Omaha. July is one of the most popular times of the year for tourism. We strongly suggest that you reserve your room as soon as possible. For each hotel, please note the reservation code required for booking at the special SSR rate. **IMPORTANT: When making a reservation at any of the following hotels, please identify yourself as being with the SSR group and use the group codes indicated below to receive the special rate.** If you have questions regarding the following hotels, you may email the business office at [ssr4@ssr.org](mailto:ssr4@ssr.org).

**Hilton Omaha.** 1001 Cass Street, Omaha, NE. Tel: 402-998-3400; Fax: 402-998-4242. \$121—Single occupancy; \$141 Double/Triple and Quad occupancy (plus applicable taxes). Connected by walkway to the Qwest Center Omaha. Each guestroom offers a chair with ottoman, 27” television, a large well lit work desk, two 2-line phones with dataports and voicemail, wired and wireless high speed internet access, coffee maker, minibar, and an iron with ironing board. Amenities include a fitness room and swimming pool. You may reserve a room online at <http://www.hilton.com/en/hi/hotels/index.jhtml?ctyhocn=OMACVHH> (**Group Code: SSR**) Reservations will be confirmed online.

**DoubleTree Hotel.** 1616 Dodge Street, Omaha, NE. Tel: 402-346-7600; Fax: 402-346-5722. \$111—Single occupancy; \$121—Double occupancy; \$131—Triple occupancy; \$141—Quad occupancy (plus applicable taxes). Approximately 9 blocks from the Qwest Center Omaha. Rooms come with one king-sized bed or two queen beds, sitting chair and ottoman,

computer-friendly desk with high-speed internet access, leather chair, coffee maker, iron and ironing board. Reservations may be made online at: <http://doubletree.hilton.com/en/dt/hotels/index.jhtml?ctyhocn=OMAH-DT> (**Group Code: SSR**). Reservations will be confirmed online.

**Courtyard by Marriott.** 101 South 10<sup>th</sup> Street, Omaha, NE. Tel: 402-346-2200; Fax: 402-346-7720. \$99—Single, Double, Triple, or Quad occupancy (plus applicable taxes). Approximately 2.5 blocks from the Qwest Center Omaha. Rooms come with comfortable sitting areas, free high-speed Internet, a work desk with chair, data port, 2 dual-line phones with voice mail, cable tv with pay-per-view movies, hair dryer, iron & ironing board, and in-room coffee and tea. Reservations can be made online at: <http://marriott.com/property/propertypage/omacy?groupCode=ascasca&app=resvlink> (**Group Code: SOCSOCA**). Reservations will be confirmed online.

**Hilton Garden Inn.** 1005 Dodge Street, Omaha, NE. Tel: 402-341-4400; Fax: 402-341-5200. \$115—Single, Double, Triple, or Quad occupancy. Approximately 2 blocks from the Qwest Center Omaha. Rooms are available with either a king or 2 double beds and offer complimentary high-speed internet access, 2 dual-line speaker phones, data port and voicemail, chair with ottoman, large work desk, refrigerator, microwave, coffee maker, hair dryer, iron and ironing board. Non-smoking and handicap accessible rooms are also available. You may reserve online at: <http://www.hiltongardeninnomaha.com/> (**Group Code: SSR**).

**Sheraton Omaha.** 1615 Howard Street, Omaha, NE. Tel: 402-342-2222; Fax: 402-342-2569. \$105—Single, Double, Triple, or Quad occupancy. Approximately 12 blocks from the Qwest Center. Guest rooms include cable television, high speed internet access (for a charge), data ports, desks, sitting areas, coffee makers, voicemail, refrigerators, iron and ironing board. To make reservations online, go to: <http://www.starwoodhotels.com/sheraton/search/hotelDetail.html?propertyID=1040>

#### TRANSPORTATION INFORMATION

**Transportation from Eppley Airfield (OMA).** The Ground Transportation Center at Eppley Airfield is located inside center door #3 on the lower level of the terminal building. Local area hotel phone boards can be found near the north and south baggage claim areas. Courtesy phones are available at the airport to arrange for shuttle service with your hotel. The ride time is approximately 10–20 minutes.

**Shuttle Service at the Hotels.** *Hilton Omaha:* Complimentary service is available by calling the front desk, arranging for it at the bell stand, or using the courtesy phone at the airport. Depending on demand, shuttles typically leave on the hour and half hour. *Doubletree Hotel:* Complimentary service runs all day and evening beginning at 5:00 a.m. Arrange for a ride by calling the hotel desk, whether to or from the airport or into downtown Omaha. The hotel will run shuttles to the Qwest Center on the hour and half hour as needed. *Courtyard by Marriott:* Complimentary shuttle service is available to downtown and to the riverfront areas, and can be arranged at the front desk. For rides to and from the airport, call the hotel or arrange for it at the front desk. *Hilton Garden Inn:* Complimentary shuttle service is available within a 4-mile radius from the hotel and can be arranged at the front desk. Shuttles to and from the airport

leave on the hour and half hour, as needed. *Sheraton Omaha:* Complimentary shuttle service is by request. It is recommended that you schedule specific times upon check in, since scheduled service takes a priority to other requests. Scheduling can also be done first thing in the morning each day. Airport service is complimentary and can be arranged by calling the front desk or using the airport courtesy phone.

**Taxi Service.** Six taxi companies are available in Omaha, which you can find by consulting the Omaha phone directory. Taxis are on-hand at the Eppley Airfield terminal's front drive.

**Car Rentals.** Approximately 30 car rental agencies serve the Omaha area. All major car rental agencies have offices at Eppley Airfield and in various locations in Omaha.

**City Bus Service.** Public transportation is provided by Metro Area Transit (MAT). All buses are wheel chair accessible. Ticket booklets can be purchased at grocery stores and many business establishments in Omaha. MAT's hours of operation are 4:15 a.m. to 10:50 p.m. weekdays, 6:00 a.m. to 10:50 p.m. Saturday, and 6:15 a.m. to 10:00 p.m. Sunday. A detailed map of schedules and routes can be found at [www.metroareatransit.com](http://www.metroareatransit.com).

#### OTHER INFORMATION

**Air Travel.** The Omaha Airport system consists of the Omaha Eppley Airfield (OMA). Eppley Airfield is presently served by nine scheduled passenger airlines: American Airlines, American West, Continental, Delta Airlines, Frontier, Midwest Air, Northwest Airlines, Southwest Airlines, United Airlines.

**Climate.** Omaha has a continental climate with warm summers and dry winters. Precipitation can occur from April through September, with an average rainfall of 3.73 inches in July. Daytime temperatures in July are usually in the range of 75–80 degrees Fahrenheit (23–27 degrees Celsius). For evenings, light sweaters or jackets may be needed. For up-to-date weather information, check: <http://www.ketv.com/weather/index.html>

**Conference Attire.** Casual dress is appropriate for all meetings and social events.

**Copies and Faxing.** Photocopying and faxing services will be available at the Business Centers of the Hilton Omaha, the Doubletree, and the Hilton Garden Inn. Copycat Printing & Copying is located at the corner of 15<sup>th</sup> Street and Howard Street, about a block from the Sheraton Hotel. It is open Monday—Friday from 7:30 a.m. to 5:30 p.m.; closed Saturday and Sunday. JAVA.com is the Qwest Center Omaha's business center and will be available for use during the SSR meeting and events. It has a copier, fax, printer, and two computers, all payable with a credit card. It is located near Exhibit Hall A on the Ground Floor of the Qwest Center Omaha.

**Dining & Entertainment.** In close proximity to the Qwest Center is the historic "Old Market" district, a unique eating, shopping, and entertainment area. It is centered in Omaha's former fruit and vegetable warehouse and market district and is one of Omaha's most popular tourist attractions. The Old Market is home to numerous specialty shops, cappuccino shops, breweries, restaurants, taverns, galleries, nightclubs and bakeries. Visit the Greater Omaha convention & Visitors Bureau website to obtain a list of restaurants (<http://www.visitomaha.com/vandr/Dining.asp?t=DINING&>

sn=visitors) or look for information in your registration packets at the meeting.

**E-mail.** Internet access will be available in Exhibit Hall A of the Qwest Center Omaha.

**Insurance.** Liability insurance is the responsibility of each individual delegate. All delegates should therefore have their own medical coverage.

**Medical Services.** Urgent Care treatment is available at the Park Plaza Urgent Care (105 N. 31<sup>st</sup> Avenue, #102). Nearby hospitals include Methodist Hospital, located at 8303 Dodge Street; UNMC / University Hospital, located at 42<sup>nd</sup> Street and Emile; and Douglas County Hospital. (See also under Insurance).

**Message Service/Lost and Found.** The SSR Information Desk and Message Center will be on the 2<sup>nd</sup> floor of the Hilton Omaha, Saturday through Tuesday. Messages for attendees may be posted on the Message Board. Mail for hotel guests should be sent to the appropriate hotel (please include guest's full name, group name, arrival date or room number, if known).

**Parking.** Parking for the meeting will be available at the Qwest Center Omaha. Parking fees will be paid daily at the parking lot gates upon entry; the rate for one space with no re-entry is \$6.00, and the rate is \$9.00 if you prefer the option of one exit and re-entry that day. No overnight parking is allowed at the Qwest Center. Visit the Qwest Center Omaha and click on "Directions/Parking" to view a map of the parking areas (<http://www.qwestcenteromaha.com/>). At the Hilton Omaha, self-parking is \$8.00 with valet parking available for \$14.00; the Doubletree offers self-parking for \$6.00; the Courtyard by Marriott offers complimentary parking for all of its guests; the Hilton Garden Inn charges \$8.00 for parking in its attached 5-story ramp; and the Sheraton Omaha provides valet parking for \$8.00 as well as self-parking for \$7.00.

**Special Needs.** Please contact the SSR Business Office at 608-256-2777 or on site at the Registration Area in Foyer 4 if you require assistance getting to or from sessions or events or need special dietary or physical accommodation at any event or session. SSR is pleased to accommodate any attendee who needs assistance to ensure that all attendees are able to participate in the meeting. For those who have food allergies, please advise the SSR Administration Office by e-mail to [ssr2@ssr.org](mailto:ssr2@ssr.org).

**Smoking Regulations.** Smoking is prohibited in all areas inside the Qwest Center Omaha. Smoking is permissible in designated smoking areas only in restaurants and public areas. Most restaurants have converted to being smoke-free environments.

**Sales Taxes.** Most goods and services purchased in Omaha are subject to a 6% sales tax.

#### AWARDS CITATIONS



**Carl G. Hartman Award.** The 2006 recipient of the Carl G. Hartman Award is Dr. R. Michael Roberts. Dr. Roberts is internationally recognized as a leader in the field of reproductive biology. His remarkable contributions span the fields of animal agriculture, biotechnology, reproductive biology, and human and veterinary medicine. His work during 15 years at the University of Florida and 21 years at the University of Missouri

has focused primarily on the molecular events of early recognition of pregnancy, particularly in cattle and sheep.

Dr. Roberts, who holds a Ph.D. in plant sciences from Oxford University, joined the University of Florida in 1970. There he met Dr. Fuller Bazer, and together they started working on uterine secretory proteins. One of the first proteins they identified was uteroferrin, a deep purple, iron-binding protein that is an extremely potent acid phosphatase. The Roberts-Bazer research group illustrated that the probable role of uteroferrin during pregnancy in pigs is not as an enzyme but, instead, as a source of iron for the fetus. This discovery was of monumental importance since neonatal iron deficiency is a major nutritional problem in the swine industry. The Roberts laboratory later showed that uteroferrin is identical to a class of lysosomal enzymes known as the tartrate-resistant acid phosphatases (TRAPs). His group was the first to purify, sequence, and then clone the human TRAP. Since TRAP is elevated in the serum of patients with high rates of bone turnover, TRAP immunoassays are beginning to be used in the screening of postmenopausal women for osteoporosis, a condition that afflicts at least 20 million women in the United States alone. This development is a direct outcome of Dr. Roberts's initial description of the human spleen and bone enzymes.

After studying a number of uterine proteins, the Roberts-Bazer research team concentrated their efforts on the elusive antiluteolytic embryonic factor secreted by the pre-implantation conceptuses of domestic ruminant species, which had initially been recognized as a protein by Jacques Martal. The factor, which was purified from the medium after culturing conceptus flushed from the maternal uterus, was initially named either ovine trophoblast protein-1 (oTP-1) or bovine trophoblast protein-1 (bTP-1), depending on the source, and was capable of extending the estrous cycle when injected into the uterine lumen of nonpregnant animals. Purification of the oTP-1 and production of a specific antiserum allowed cDNA libraries to be screened and, in 1987, the eventual identification of oTP-1 and bTP-1 as type 1 interferons, resembling interferon-alpha and -beta. Until that time, interferons had only been known as antiviral agents, induced briefly following an infection. The conceptus interferons were the first cytokines shown to have a role in a constitutive developmental process. Ultimately, these antiluteolytic factors became known as interferon-tau.

In 1985, Dr. Roberts moved to the University of Missouri. By then he had extensive experience in protein biochemistry and was steadily gaining experience in molecular biology. He focused his laboratory's efforts initially on the cloning of oTP-1 and bTP-1, determining the number of their functional genes, mapping and sequencing some of these genes, and defining their regulatory regions and particularly how their promoters differed from those of the virally inducible interferon-alphas and -betas. His laboratory and those of others also produced large amounts of pure recombinant bovine and ovine interferon-tau, allowing the physical, biochemical, and biological properties of these proteins to be examined and their effects on reproductive parameters to be tested.

By the early 1990s, Roberts had realized that the conceptus interferons, now officially known as interferon-tau, had a restricted distribution and were not found in all eutherian mammals. Instead it became apparent to him and others in the field that the ruminant artiodactyls (sheep, cattle, goats, deer), which exhibit minimal trophoblast invasion of the maternal endometrium, had evolved a unique means of rescuing the corpus luteum during early pregnancy that involves the production of interferon-tau. His laboratory calculated that

the interferon-tau genes had originated quite recently, at about the time that the lineage to ruminants became established, and were still evolving at an unusually high rate. Dr. Roberts further studied the transcriptional control mechanisms that restrict interferon-tau gene expression to the mononucleate cells of the trophoblast for a limited period between blastocoel formation and the time of definitive attachment of the trophoblast to the uterine endometrium. His laboratory cloned and characterized the interferon-tau receptors from the endometrium of cattle and sheep and showed that they were identical to the receptors responsible for signal transduction initiated by other type 1 interferons. The laboratory also began to study other rapidly evolving families of genes found in the placenta, and identified trophoblast Kunitz domain proteins (TKDP) and, with Jean-Francois Beckers, the pregnancy-associated glycoproteins (PAG). The latter are used as the basis for a biochemical test for pregnancy in ruminants, especially in dairy cattle.

Some of the most recent work from the Roberts laboratory is on sexual dimorphism in embryos, and, in particular, how the diet of the mother at around the time of conception may have a role in determining the sex of offspring. Evidence for this hypothesis came in association with Cheryl Rosenfeld from mice, in which a diet very high in fat, but nutritionally complete, was seen to bias the litter toward males, whereas a diet high in carbohydrates led to female-dominated litters. Litter sizes are not altered and are the same as those in chow-fed animals. Dr. Roberts is particularly excited by this phenomenon because it might allow sex of offspring to be manipulated by diet in livestock species. The Roberts laboratory is also studying the differentiation of human embryonic stem cells and particularly their conversion to trophoblast. Finally, his group has recently shown that the lineage to trophoblast may already be pre-patterned within the oocyte during mouse embryonic development.

The high quality and exceptional productivity of Dr. Roberts's research program is clearly evident upon review of his publication record. He has authored or co-authored 254 papers in a variety of refereed journals and 72 book chapters and invited reviews, and with his collaborators been granted two patents. His international reputation as an innovative scientist and his well-known willingness to discuss his research findings have resulted in invitations to make presentations at 180 seminars and symposia during the past 25 years. These have included invited addresses to national societies. In particular, he was the 2nd Sydney Asdell Lecturer at Cornell University in 1990, the Amoroso Lecturer at the meeting of the Society for the Study of Fertility in 1994, the Nalbandov lecturer at the University of Illinois in 2000, and the keynote speaker at the Annual Meeting of the Society for the Study of Reproduction in 2001.

The research accomplishments of Dr. Roberts have been recognized by numerous awards. These include the SSR Research Award (1990), NIH MERIT Award (1990–2000), USDA Distinguished Scientist (1992), Milstein Award from the International Society for Interferon and Cytokine Research (1995), Alexander von Humboldt Award (1996), and Wolf Prize for Agriculture (2003). He was included in the *Scientific American* "Top 50" list for accomplishments in research and technological leadership in 2005.

Dr. Roberts's research has been supported continuously by the National Institutes of Health since 1972 with several grants, including a Career Development Award and a 10-year MERIT Award. He has also been funded continuously from the USDA since the inception of the USDA competitive

grants programs, and has received research funding from six different companies.

Dr. Roberts's dedication to research is not confined to his laboratory work. He served as a member of the NIH Reproductive Biology Study Section (1987–91), on the advisory panel of NSF (1984–87), and as a grant reviewer for MRC (UK), MRC (Canada), Veterans Administration, Wellcome Foundation, and Melon Foundation. He has served as chief scientist with the Competitive Grants Program for the U. S. Department of Agriculture (1998–2000). He has organized a number of high-quality scientific meetings such as the Gordon Research Conferences on Reproductive Tract Biology (1986, 1988). He has trained 25 Ph.D. students and over 30 postdoctoral trainees over his career at Florida and Missouri. Many of his students have become professors at prominent universities or research leaders in government agencies. These students themselves have won numerous honors and awards.

Dr. Roberts has served SSR in various capacities. He has been a Director (1993–96), chair of the Membership Committee (1985–86), and member of the Program Committee (1992). As a member of the Editorial Board of *Biology of Reproduction* (1986–90) and reviewer of numerous manuscripts, he has helped make *BOR* one of the most prominent journals in the field of reproduction.

Recognition of Dr. Roberts's great scientific contributions, his leadership, and the high esteem in which he is held by his scientific colleagues was expressed by his election to membership in the National Academy of Sciences in 1996.

In summary, Dr. Roberts is a world-class scientist with astonishing drive and critical follow-through that have contributed greatly to the advancement of reproductive biology and to the benefit of society.



**SSR Distinguished Service Award (sustaining support by *Serono Reproductive Biology Institute*).**

Dr. P. Landis Keyes is the recipient of SSR's Distinguished Service Award for 2006. This award is given annually to a member of SSR who has shown unselfish service and leadership in advancing the field of reproductive biology within the Society

and beyond. Dr. Keyes's lifetime of service to our discipline unquestionably fulfills this requirement. He personifies the definition of distinguished service and exemplifies the character of this award. The following overview of his service to reproductive biology and to SSR only highlights his many contributions.

After his postdoctoral fellowship at Harvard Medical School in 1968, Dr. Keyes joined the faculty at Albany Medical College in the Departments of Obstetrics and Gynecology and Physiology. He became a member of SSR in 1970. In 1972 he was recruited to the University of Michigan, Departments of Pathology and Physiology, and became a member of the Reproductive Endocrinology Program. It is here at the University of Michigan, among his colleagues in the reproductive sciences, that he has had a long and productive career in research and teaching. The majority of his research focused on the corpus luteum and the hormones that regulate its formation and demise. Dr. Keyes's classical work on the rabbit corpus luteum revealed that estrogen was a necessary and sufficient luteotropin and that, at least in the rabbit, the estrogen source was in the follicles. This large body of work set the stage for a large number of reproductive

scientists working in various species to investigate the role of estrogen as a potential luteotropin. For example, in collaboration with Dr. Keyes, Drs. JoAnne Richards and Geula Gibori explored whether the rat corpus luteum also depended on estrogen for support. Dr. Gibori subsequently showed in an elegant series of studies that indeed the rat corpus luteum also required estrogen, although the source of estrogen was distinct from that in the rabbit. Dr. Keyes's lab went on to evaluate the mechanisms of luteal regression. His lab provided key studies defining the involvement of inflammatory cells in luteolysis. For example, his lab showed that estrogen withdrawal-induced macrophage invasion in the rabbit corpus luteum is associated with apoptosis. The research conducted in the Keyes lab has defined the luteotropic role of estrogen and revealed the cell biological events associated with luteolysis. His publications have consistently been of the very highest quality, and his pioneering studies of the hormones regulating corpus luteum formation and demise are landmark papers.

Dr. Keyes has trained individuals who are actively engaged in research in the field of reproductive biology today: Milo Wiltbank, Geula Gibori, John Gadsby, Paulraj Bagavandoss, David Townson, Roberto Towns, and most recently Jennifer Bowen-Shauver. His commitment to training was especially evident during his term as President of SSR, when he initiated the development of the SSR New Investigator Award.

Dr. Keyes has also served the broader scientific community. In addition to his work on numerous ad hoc NIH site visits and review committees, Dr. Keyes was a member of the Clinical C Fellowship Review Committee (1979–81), the Clinical Sciences Study Section (1985–89), and the Reproductive Biology Study Section (1996–2000; chair from 1998 to 2000). Additionally, Dr. Keyes was on the Editorial Board for the *Proceedings of the Society for Experimental Biology and Medicine* (1985–88) and served as an Editor for *Endocrinology* (1979–82). He co-chaired the Local Arrangements Committee for the 1994 Sero Ovarian Workshop at the University of Michigan.

Dr. Keyes has worked very hard over the last 30 years to support the spirit, goals, and values of our Society. His service and contributions to SSR have been steadfast and tireless. He has served SSR as chair (1972) and member (2006) of the Nominating Committee, member of the Program Committee (1977 and 1999–2000), member of the Editorial Board of *Biology of Reproduction* (1978–82), chair of the Local Arrangements Committee for the 1980 Annual Meeting, chair of the Program Policy Committee (1982), Director (1985–88), member (1987–90) and chair (1994) of the Publications Committee, member (1990–93) and chair (1992) of the Future Meetings Committee, Treasurer (1994–97), President-Elect (2001–02), President (2002–03), and Past-President (2003–04). While President, Dr. Keyes facilitated the establishment of the interaction between SSR and the Society for Reproduction and Fertility, resulting in the creation of the New Investigator Award and initiation of the Trans-Atlantic SSR/SRF Symposium. He established the ad hoc Committee on Reproduction and the Environment to enhance this field of endeavor within the Society. Additionally, Dr. Keyes undertook the very important goal of developing a new strategic plan for SSR, which was completed by the 2004 Annual Meeting. Development of a new strategic plan for our Society at this time was crucial to the well-being and future growth of SSR, and Dr. Keyes had the insight to recognize this and select a committee that wrote an extremely thoughtful and significant report. This long list of service activities that Dr.

Keyes has performed for the Society clearly sets him apart from others for his commitment and dedication to SSR. Dr. Keyes has displayed extraordinary leadership and is perceived as a mentor to many young investigators in the Society. Dr. Keyes shows a quality that all investigators, young or more senior, will aspire to—scientific excellence, mentoring, and complete dedication to the role that reproductive biology plays in support of world health.

In summary, Landis Keyes has been a leader in the reproductive sciences since his entry into the field in the early 1970s. Dr. Keyes not only has served the greater scientific community but has also provided continuous service to SSR in a wide variety of roles, culminating in his election to the Presidency of the Society. Significantly, it is very clear that Dr. Keyes will happily take on nearly any job for the SSR when called upon again. His mark on our Society and on reproductive science as a whole is unmistakable and profound.



**SSR Research Award (*sustaining support from Organon, NV*).**

Dr. Michael D. Griswold is the recipient of the 2006 SSR Research Award. Dr. Griswold began his research career as a student in biochemistry at the University of Wyoming, where he received his Ph.D. in 1969. He was an NIH postdoctoral fellow in the Department of Physiological Chemistry

at the University of Wisconsin–Madison and spent a year in Rome, Italy, conducting postdoctoral studies in cell biology. He later held positions at Baylor College of Medicine and Best Institute at the University of Toronto. In 1976 Dr. Griswold joined the faculty at Washington State University in Pullman, where he has spent a long and productive career studying male reproductive biology, particularly the function of Sertoli cells in spermatogenesis.

Dr. Griswold is a leader in the field of male reproduction, and his significant scientific contributions have enhanced our understanding of testicular somatic cell function and their influence on germinal cell differentiation and maturation. His ideas, approaches, and results have led to a better understanding of the Sertoli cell, provided improved animal models and methodology for the study of spermatogenesis, and precipitated new concepts in testis biology, contraception, and infertility. In the last 34 years, Dr. Griswold has published more than 180 papers in prominent journals. Within the last 6 years alone, he has contributed more than 40 peer-reviewed publications demonstrating a profoundly active research program. As a testimonial to the vitality of his scholarship, leadership, and collaborative philosophy, he has been invited to present lectures at over 57 meetings and colloquia during his career. The past few years have been immensely productive and characterized by innovative and ground-breaking research. Dr. Griswold has recently made major contributions to our understanding of the molecular biology of Sertoli cells and their interactions with germ cells, the regulation of gene expression in the testis, the dynamics of spermatogonial stem cells, and global patterns of gene expression.

Dr. Griswold has done pioneering work on the molecular and cellular aspects of Sertoli cell function. Two examples of his creativity are his development of the vitamin A-deficient rat model to synchronize spermatogenesis and thereby define more precisely the cellular interactions and associations that occur, and his discovery of sulfated glycoprotein-2 as one

of the major proteins secreted by Sertoli cells to serve as a marker of Sertoli cell function. Dr. Griswold's research on the structural and functional characterization of the FSH receptor gene (his lab was the first to clone this gene) is tremendously important to our understanding of male reproductive function. This is another example of the cutting-edge research from Dr. Griswold's laboratory.

Dr. Griswold's more recent publications reveal his focus on insights derived from two extremely important technologies—spermatogonial stem cell transplantation and microarrays. It would be easy to say that his science has become "technology driven" but this would belittle the insight and gutsiness that it took to go in these directions. Both methodologies are technologically intimidating, hard to establish, and expensive. Not many among us would have the courage to face the "down time" it takes to get either of these methodologies established in our labs, much less both! However, Dr. Griswold saw them as significant and essential for new knowledge about cell interactions in the testis.

Dr. Griswold has used spermatogonial stem cell transplantation assays to establish germ cell or somatic cell autonomy of important gene products, such as the androgen receptor, which he definitively showed was not required in germ cells. By transplanting testicular cells from androgen receptor (AR) deficient mice into seminiferous tubules of AR-positive azoospermic mice, he demonstrated that murine germ cells do not require AR to complete spermatogenesis (Johnston et al., 2001, *Endocrinology* 142:2405). This methodology is proving to be remarkably productive for determining the necessity of expression in the germ cell versus somatic cell compartments in testicular function, as more and more genes are being identified that are required for fertility. For example, see Buaas et al. (2004, *Nat Genet* 36:647), where it was shown that actions of the *Plzf* gene are required in germ cells in order to maintain stem cell renewal. Dr. Griswold has improved the methodology for culturing germ cells prior to transplantation, an important step for adapting this technology to gene therapy and production of transgenic animals.

Dr. Griswold's prompt adaptation of microarray analysis to understanding hormonal regulation and gonadal development has led to the development of numerous data sets that provide a foundation for future research and serve as a valuable resource to the scientific community. These studies have also added greatly to our understanding of gene networks and pathways induced by androgens and FSH in the testis and those that accompany gonadal differentiation and development. His gene profiling studies using hypogonadal mice are thorough and insightful in vivo evaluations of FSH and androgen action in the testis, revealing the temporal changes in genetic pathways that follow hormone stimulation.

In addition to his research, Dr. Griswold contributes in many other ways to the scientific community. He has served continually on editorial boards and review panels, and has been an active member of the Society for the Study of Reproduction since 1981. In service to SSR, he has been a member of the Board of Directors (1989–92) and Program Committee (1992, 1995) and has served as Program Chair (1998), President-Elect (1997–98), President (1998–99), and Past-President (1999–2000). Dr. Griswold is an outstanding educator, having trained 29 M.S. and Ph.D. students as well as 21 research associates and postdoctoral fellows. His mentorship is to be admired, and the respect these students show him is to be envied. More important, many of his students have developed their own careers as respected scientists and educators.

The respect of his colleagues is readily apparent. During the last few years Dr. Griswold has served in leadership roles at Washington State as department chair, dean of the College of Sciences, and director of the School of Molecular Biosciences, and has received the Edward R. Meyer Professorship in Science.

Few scientists have had such an impact on the field of male reproductive biology as a visionary researcher, mentor, and administrator. Dr. Griswold's distinguished record of achievement provides ample evidence that he is highly deserving of the SSR Research Award.



**SSR New Investigator Award (*sustaining support from the Virendra B. Mahesh New Investigator Endowment Fund*).**

Dr. Andrea S. Cupp is the recipient of the 2006 SSR New Investigator Award. Dr. Cupp is a young investigator who has contributed significantly to the field of reproductive biology. She is a researcher, mentor, and teacher poised to become a leader in her field.

Dr. Cupp exemplifies a researcher who is committed to advancing the field of reproductive biology and the training of future scientists.

Dr. Cupp received her Ph.D. from the University of Nebraska in 1994 and during the next 10 years published 29 manuscripts in peer-reviewed journals. Dr. Cupp is the first author on 10 of these; 15 of the 29 were published in *Biology of Reproduction*. Her Ph.D. research with Dr. Jim Kinder addressed differential sensitivity of gonadotropin secretion to estradiol modulation during the bovine estrous cycle. Her studies were a significant contribution to the broader program in Dr. Kinder's laboratory that defined endocrine changes associated with follicular development and early formation of the bovine corpus luteum.

Dr. Cupp acquired her current interest in the role played by growth factors in early gonadal differentiation and development during 6 years of collaboration with Dr. Michael Skinner as a postdoctoral fellow and research assistant professor. This collaboration produced an exciting series of publications describing the impact of specific growth factors in testicular development and defining a developmental cascade that occurs as the indifferent gonad undergoes differentiation of Sertoli cells and formation of the fetal testes on a molecular and cellular level. She produced 14 publications from her postdoctoral fellowship. Research ranged from identification of growth factors involved in testis morphogenesis such as TGF- $\alpha$  and neurotrophin 3, to the effects of environmental toxicants and endocrine disruptors on that process. Dr. Cupp was involved in projects regarding the transcriptional control of Sertoli cell differentiation and prostate development. She helped establish the experimental model to investigate gonadal development during embryonic organ culture and used that system to provide insights into novel development and how environmental factors affect this process. These findings were summarized and integrated with information from other laboratories by Drs. Cupp and Skinner in a recent book chapter entitled "Embryonic Sertoli cell differentiation," in *Sertoli Cell Biology*, 2005, edited by Skinner and Griswold. According to Dr. Skinner, Dr. Cupp "is one of the most mature and productive postdoctoral fellows I have ever had as well as one of the most suited to an academic career of independent research."

Dr. Cupp joined the faculty of the Animal Science Department at the University of Nebraska in 2000 and continued

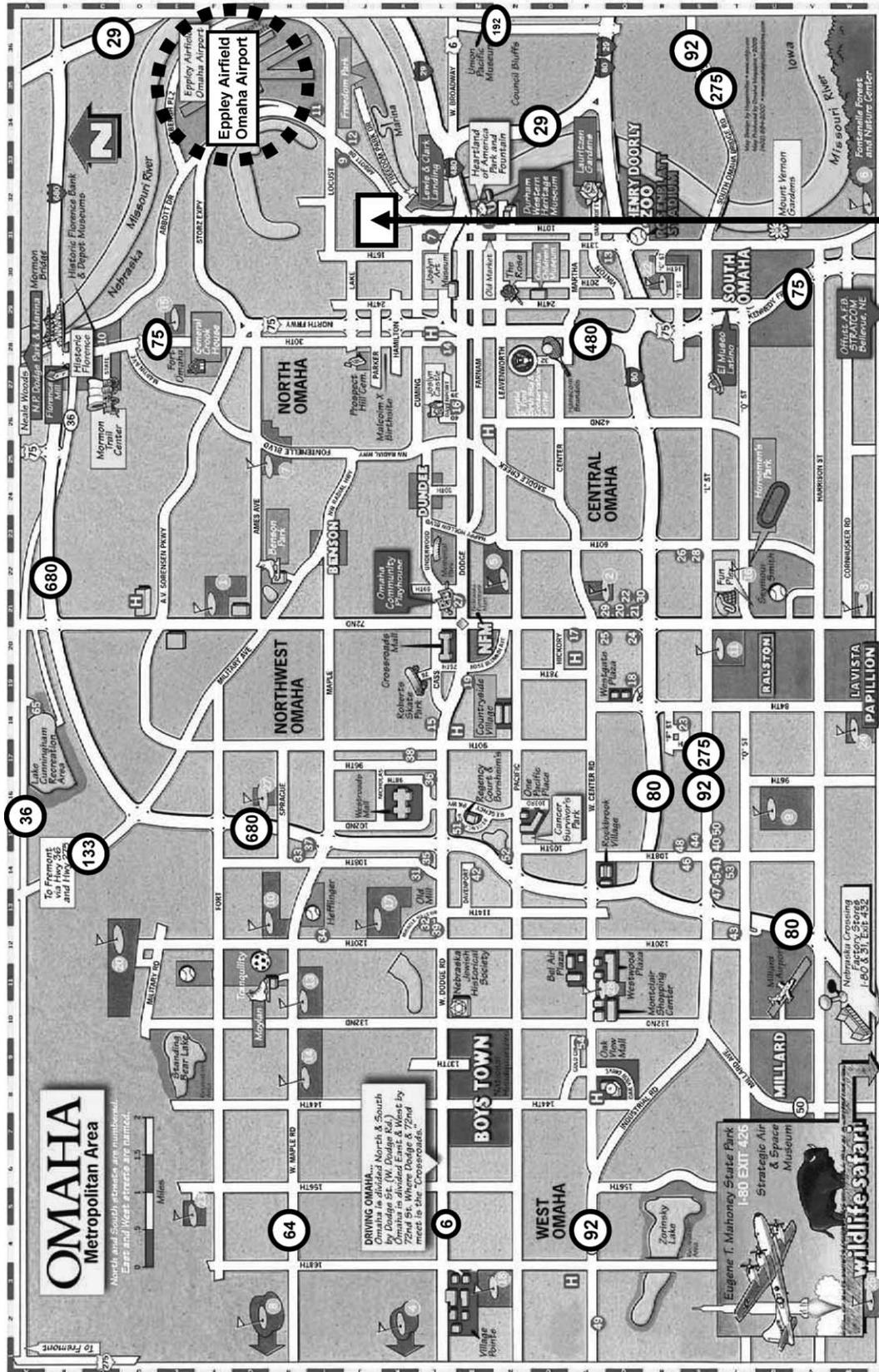
working in the field of testicular function while expanding her research interest into fetal ovarian development. She received an NIH/NICHHD RO3 award on the role of VEGF in testis development in (2003–05) and another NIH/NICHHD RO3 on molecular and cellular regulation of testis development (2004–06). She also obtained a number of smaller awards that added to her independence as a young investigator. She recruited an industrious group of graduate students and technicians whose efforts are summarized in a series of high-quality abstracts that are now being submitted and reviewed for publication.

Dr. Cupp's stature within the field of reproductive biology was already being recognized in 2004. She served as chair of the Physiology Program of the Midwest Section of the American Society of Animal Science/American Dairy Science Association and organized a highly successful symposium entitled "Factors Affecting Ovarian Follicular Development." At this meeting the abstract presentation by her graduate student, Rebecca Bott, was awarded first place in the graduate student competition. Dr. Cupp became the youngest president of the Nebraska Physiological Society, also in 2004. For the 2004 Annual Meeting of SSR, Dr. Cupp proposed, organized, and chaired a minisymposium entitled "Genomics and Proteomics in the Ovary and Testis." She was a member of the USDA/NRI Grant Review Panel for Animal Reproduction and a member of the NIH/NIDDK/NICHHD Panel to review proposals for the Murine Atlas of Genitourinary Development. In 2004, Dr. Cupp was one of two recipients honored with a Junior Faculty for Excellence in Research Award, presented by the Agriculture Research Division of the University of Nebraska at Lincoln. Collectively, Dr. Cupp has demonstrated that she can conduct a productive research program while attracting funding to support her efforts, and balance these efforts with service to the research community in a variety of leadership roles.

The significance of Dr. Cupp's research to the field of reproductive biology is not limited to her impressive publication record in the areas of gonadal development and function. Dr. Cupp has established a culture system for perinatal rat ovaries in her laboratory from a technique developed within the Skinner laboratory. This culture system has allowed her to advance the study of antagonists and the overexpression of angiogenic factors in ovarian morphogenesis and function. She has taught this technique to colleagues such as Dr. Melissa Peplin at Syracuse University and one of her collaborators, Dr. Bridgette Kirkpatrick at Collins County Community College. Dr. Kirkpatrick utilizes the ovarian organ culture in a 2-year biotechnology program to develop research projects with her students. Dr. Cupp is also advancing the technique of follicle aspiration to determine how antagonists of angiogenesis and overexpression of angiogenic factors affect ovarian folliculogenesis and steroidogenesis. These techniques facilitate research not only in the field of reproductive science but also in allied fields of study such as toxicology. These experimental procedures will assist in determining the effect of endocrine disruptors on gonadal function.

In addition to the rising number of manuscripts from her own research that are in various stages of submission, review, and publication, Dr. Cupp further displays her independence as a new investigator by her ongoing list of invited lectureships, her mentoring of graduate students, and her ability to establish collaborations on a variety of her projects.

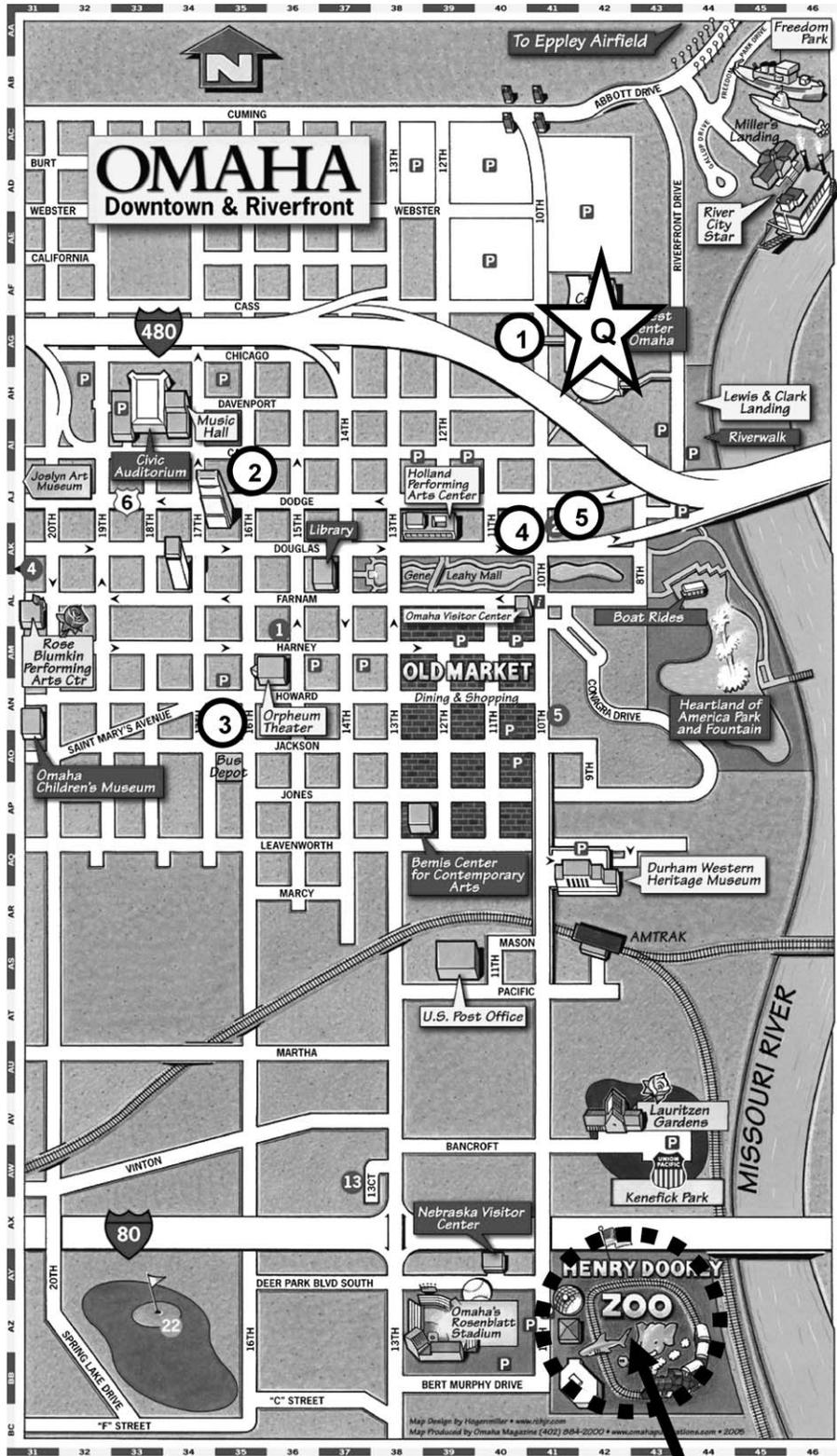
In summary, it is quite apparent that Dr. Cupp not only is committed to advancing the field of reproductive biology and training of future scientists but is already accomplished in these areas. Her credentials make Dr. Cupp a worthy choice for the SSR New Investigator Award.



**Qwest Center Omaha**

○ Numbers in circles indicate main highways.

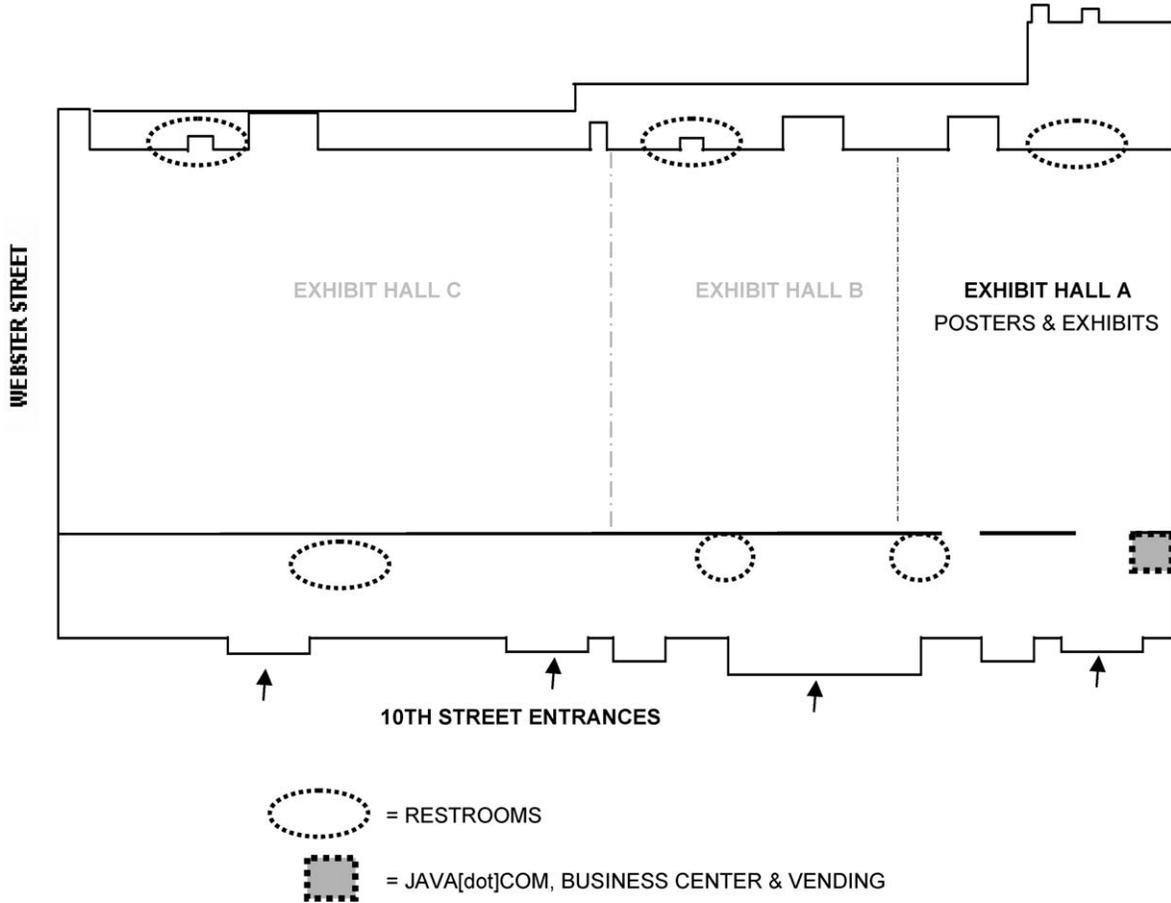
For greater detail, see downtown & Riverfront map on next page.



<b>L E G E N D</b>	Q	Qwest Center Omaha
	1	Hilton Omaha
	2	Doubletree Hotel
	3	Sheraton
	4	Hilton Garden Inn
	5	Courtyard by Marriott

**Henry  
Doorly  
Zoo**

## GROUND FLOOR - QWEST CENTER OMAHA EXHIBIT HALLS

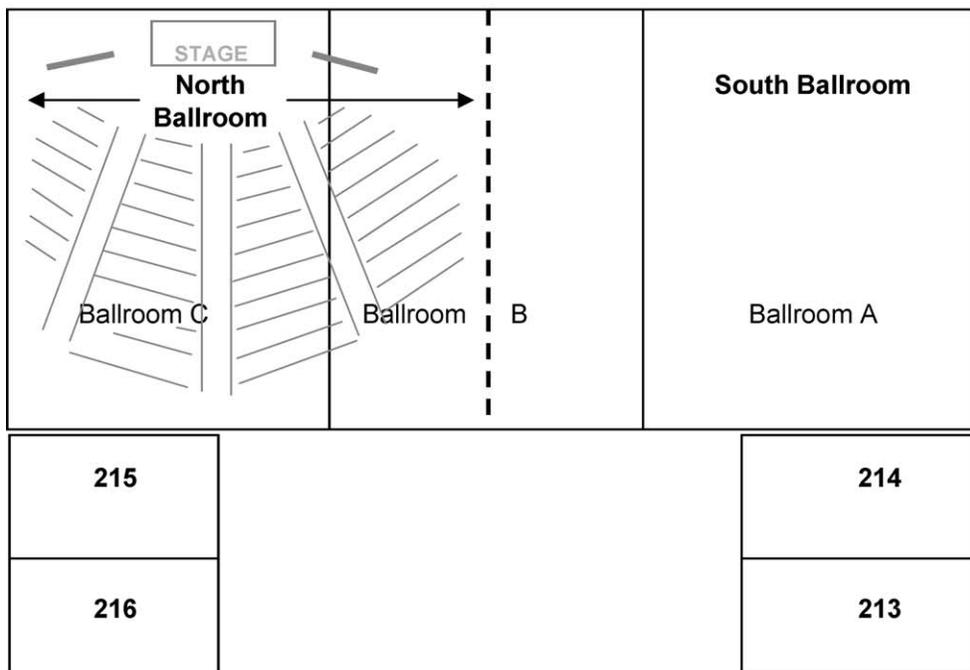


## QWEST CENTER OMAHA - MEETING ROOM LEVEL

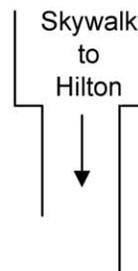
### Junior Ballroom

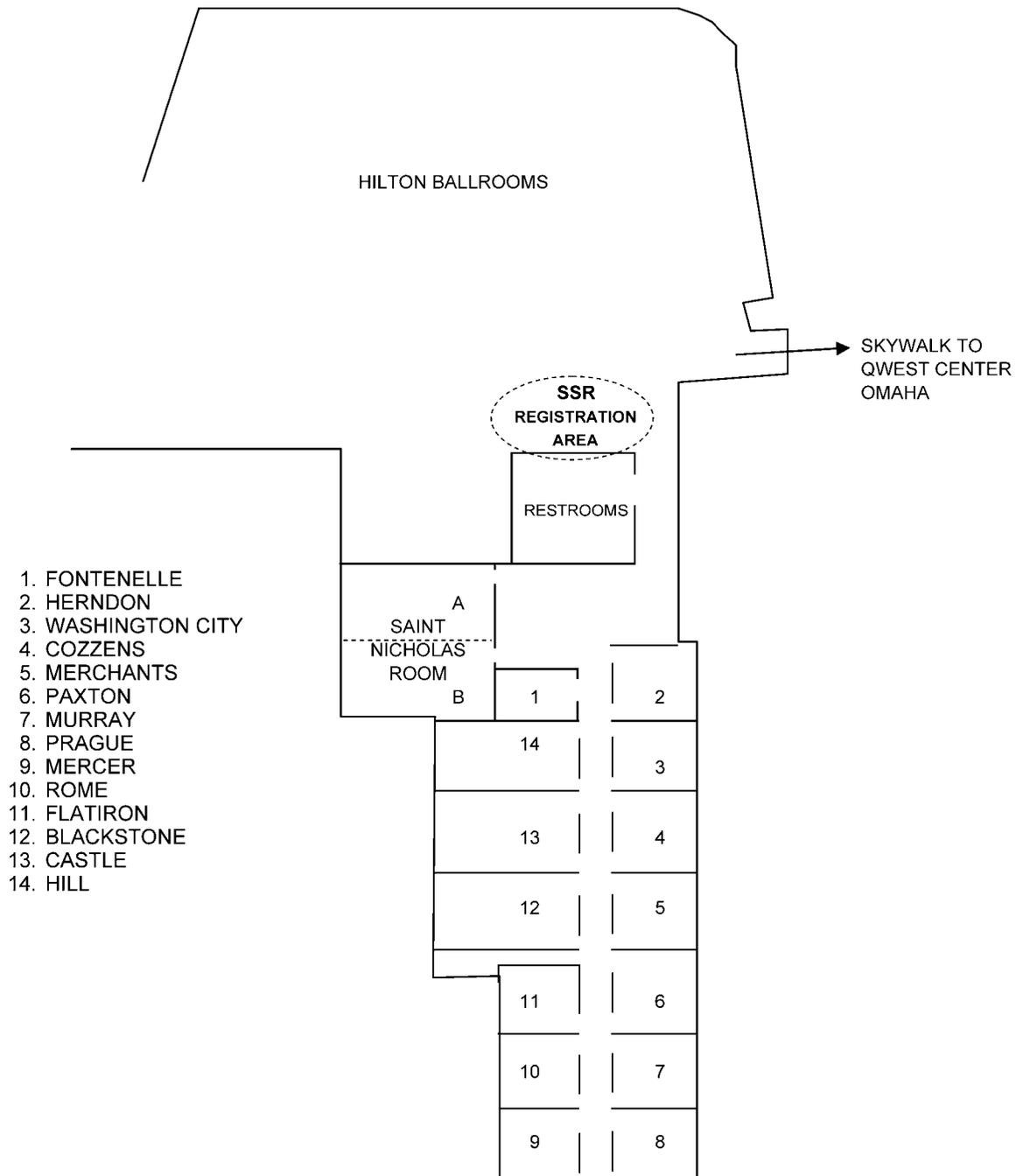
<b>201</b>	<b>202</b>	<b>203</b>	<b>204</b>
←	<i>Platform Sessions</i>	→	
1, 7, 13	2, 8, 14	3, 9, 15	4, 10, 16
<b>Minisymposia</b>			
←		→	
I, VI, XI	II, VII, XII	III, VII, XIII	IV, IX, XIV

↑ <i>Minisymposia</i> I, X, XV ↓	<i>Platform Sessions</i>				
	5				205
	11				206
17					



<b>207</b>	Placement Service
<b>208</b>	LAC Meeting
<b>209</b>	Slide Preview
<b>210</b>	<i>Platform Sessions</i>
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**HILTON OMAHA  
2ND FLOOR  
MEETING SPACE**