

# ISHPSSB



## INTERNATIONAL SOCIETY FOR THE HISTORY, PHILOSOPHY, AND SOCIAL STUDIES OF BIOLOGY

SPRING 2005 THIRTY-FIRST ISSUE VOLUME 17, No. 1

### President's Semi-Annual Report

April 2005

Arrangements are being finalized for the 2005 meeting in Guelph, Ontario. David Castle and the conference staff at the University of Guelph have put together an excellent conference venue, while Lynn Nyhart and the Program Committee have organized a rich and exciting schedule of sessions. We are looking forward to a great meeting this July.

The University of Guelph offers a relaxed and inviting setting for our meeting. Located about 45 miles west of Toronto in Ontario, Canada, the City of Guelph itself is a small, walkable city. The downtown area contains a range of restaurants and pubs all about a twenty-minute walk from the University. Conference registration and most of our meeting will be held in Rozanski Hall (see the map in this issue). Registration will be open on Wednesday afternoon and will be followed by a reception at 6 p.m. in the concourse of Rozanski Hall on Wednesday evening. Our banquet will be held on Saturday evening at the River Run Centre in Downtown Guelph. We will provide transportation to and from the University on Saturday evening. In addition to the pubs downtown, the Bullring Pub is located on the University campus next to Rozanski Hall. The Bullring was once a livestock show pavilion and is now run by the Central Students Association (CSA) as a cafe and student gathering spot.

The University of Guelph has provided a range of housing and meal options. You may sign up for lodging and meals through links on the registration webpages (<http://www.ishpssb.org/ocs/registration.php>.) You



*The University of Guelph's new Science Complex, opened in Fall 2004.*

must sign up for lodging and meals by June 15, 2005.

Registration for the conference is separate from meals and lodging. Online conference registration forms will  
*continued on next page*

About Guelph: Accommodations and Features	3-5
Membership Renewals	5
New Reference Volume	6
ISHPSSB Nominees: Please Read and Vote!	7-9
2005 Preliminary Program	9-21
Meeting Registration Form	22
Programs and Meetings of Interest	23
ISHPSSB Addresses	24

be available in April on the ISHPSSB website at <http://www.ishpssb.org/ocs/registration.php>. The conference registration fee is \$90 for regular members and \$65 for student members. Tickets for the banquet may also be purchased when you register.

**If you are presenting in Guelph you must register by May 30, 2005 or you will not be included on the final program.** The Council provisionally approved this registration requirement in 2004 in order to try to prevent sessions from collapsing as a result of last-minute cancellations. This requirement and other paper acceptance guidelines will be discussed at the General Membership Meeting in Guelph. We would like to adopt a permanent set of paper acceptance guidelines in Guelph and would appreciate your input.

The General Membership Meeting is open to all members and is scheduled for Friday afternoon, July 15, 2005. Please plan on attending. If you have items that you would like to add to the General Membership Meeting Agenda, please send them to me no later than June 1, 2005.

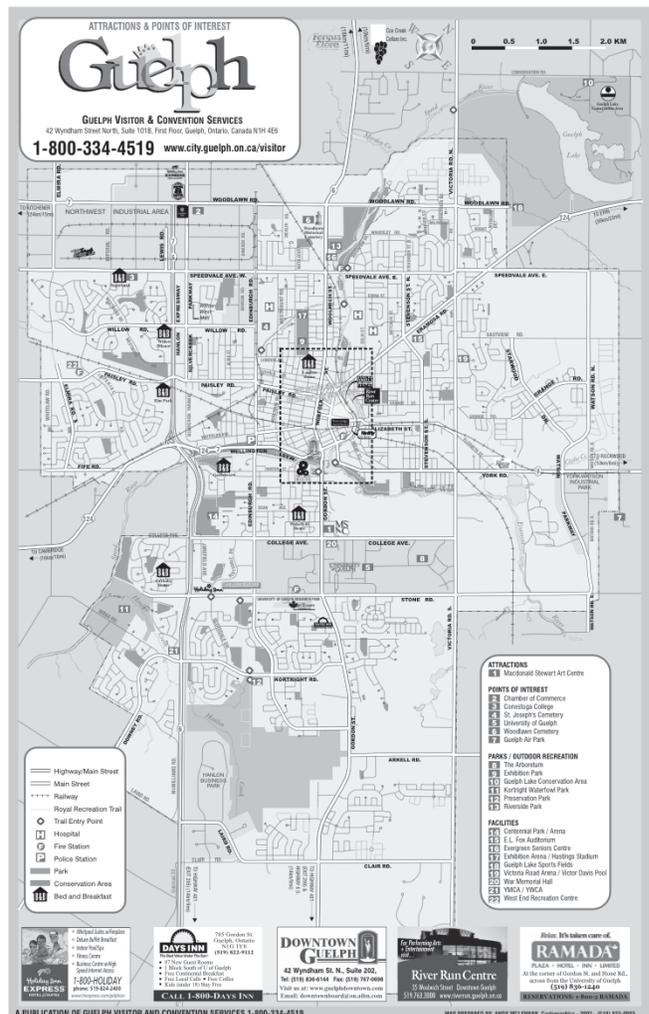
Lindley Darden and the Nominations Committee, Ana Barahona, Christiane Groeben, Nick Hopwood, Betty Smocovitis, Ida Stamhuis, and Bruno Strasser, have worked diligently to assemble this year's slate of candidates for the ISHPSSB elections. Thank you to the Nominations Committee and to those who have agreed to run for office. Because our society runs on volunteer labor only, this kind of service is indispensable and greatly appreciated. Please take some time to read the candidates' statements and send in the ballot included with this newsletter. The ballot is return addressed, but you will have to provide postage. The deadline for mailing your ballot is June 1, 2005. Voting is one of the most direct ways in which you can have a voice in this society. PLEASE VOTE!

In addition to assembling a great slate of candidates this year, the Nominations Committee and Lindley Darden in particular worked hard to clarify our nomination and election procedures. This process of articulating our society's operations has been ongoing for the last two years and has culminated in an Operations Handbook, which will soon be posted on the ISHPSSB website. This Handbook represents my effort to collect and record some of the collective memory that has kept ISHPSSB running. It includes job descriptions, timetables, and reports for each society officer and committee, in so far as they were available to me. In some instances, such as nomination and paper acceptance guidelines, it became obvious that we needed to clarify our procedures. This Operations Handbook is a means for communicating our Society's current procedures and past practices. It is not a finalized document, but a continuously developing

draft. Committee Chairs and Society Officers will be asked to submit reports to update the Handbook every two years. ISHPSSB members should also feel free to suggest changes or request more information. I hope that by making the running of this Society more transparent, more members will want to participate actively in its governance. If you have questions about ISHPSSB operations or about how you can get involved, I'd like to hear from you.

Over the past two years, we have incorporated a number of electronic innovations to our Society's operations. I am immensely grateful to our Webmaster, Roberta Millstein, for all of her work on our new website, new server, new conference software, registration forms, and PayPal payment options. These new features are very important additions for ISHPSSB. Of course, not every system is perfect. We will continue to fine tune and develop our website in the future. Your comments, suggestions, and patience are welcome.

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Visit Guelph online at <http://guelph.ca/>

# The Scene in Guelph from the Local Arrangements Folks

## *Transportation to and from the Airport*

We are pleased to offer you special discounted transfer service between Toronto International Airport or Hamilton International Airport and Guelph via Red Car Service. When you book in advance you will receive prompt and reliable shuttle service right to your conference accommodations. Red Car Service has staffed check in booths at each terminal at Toronto Airport and provides 24-hour service. To make arrangements with Red Car Service go directly to their website at [www.redcarservice.com](http://www.redcarservice.com). Click on the icon Reservations-Conference Delegates and enter the password ISHPSSB2005 when prompted. You can then book one way or round trip transfers at special rates for this conference.

Fares: One way from Toronto International Airport is \$50 for one person, \$74 for two people traveling to the same destination, inclusive of taxes. One way from Hamilton International Airport to Guelph is \$62 for one person, \$80 for two. If you need to contact Red Car Service directly you can call them at 519-824-9344

## *Accommodations*

### *Campus accommodations*

The fees for On Campus accommodation are listed below and are Early Bird Rates until June 20, 2005. After June 20, fees will be quoted as regular rates. The cost is per person per day and includes a continental breakfast. All beds on campus are twins. Rooms can be booked online by following the registration link at <http://www.ishpssb.org>

Please be advised that the townhouses are the only air-conditioned residences. The Townhouses can accommodate up to four people in separate bedrooms. If you wish to lodge with a specific person(s), please include the name(s) on your accommodation registration.

All rooms receive daily maid service, but you may want to bring your own facecloth. Please note that although each townhouse has a kitchen with stove and fridge, no cooking utensils, dishes, cutlery, etc. are provided.

	Early Bird Rate:	Regular Rate:
Accommodation:		
Single Room	\$45.50	47.50
Shared Room	\$40.50	\$42.50
Student Room	\$31.00	\$32.50
Townhouse		
1-2 occupants	\$75.00	\$78.00
3-4 occupants	\$64.00	\$67.00

Parking in lot P18 off Dundas Lane and P19 off College Avenue is included FREE with the accommodation rate. Your parking pass will be issued when you check in. Check-in between 8:00 am and 11:00 pm is in East Residence (see map or photo). Between 11:00 pm and 8:00 am check-in is in Lambton Hall (see map or photo).

To reserve accommodation on campus at the conference rate, you must complete the on-line campus accommodation form.

### *Hotel Accommodations*

To reserve accommodation at a local hotel at the conference rate, you must complete the on-line hotel accommodation form prior to June 13. Conference rates will not be available if you contact the hotels directly.

### **Ramada Hotel and Conference Centre**

The Ramada is adjacent to the University of Guelph and is a

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Over the past few months, David Castle and the Local Arrangements Committee, Lynn Nyhart and the Program Committee, the Executive Committee, and Webmaster have come together to coordinate what promises to be a terrific meeting. While your papers will take center stage in Guelph, their work has set that stage, and I am extremely grateful for their thoughtfulness, time, and effort.

I'm looking forward to seeing you all in Guelph! If you have any questions, please do not hesitate to contact me or any ISHPSSB officer.

*Michael Dietrich*

Department of Biological Sciences, Dartmouth College, Hanover, NH 03755 (Michael.Dietrich@Dartmouth.edu) (603) 646-1389.

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short walk to the centre of campus. This hotel offers free parking, an on-site restaurant and a lounge. The Ramada is served by city bus #51.

The conference rate is \$115 single/double if you book by June 13.

See the Ramada site for more information. To book, you must use the hotel accommodation form

### Days Inn

Days Inn features 87 brand new rooms and free parking. It is located one block south of the University. Included in the room rate is a continental breakfast. The Days Inn is served by city bus #51.

The conference rate is \$95/single and \$105/twin if you book by June 13.

See the Days Inn site for more information. To book, you must use the hotel accommodation form.

### Holiday Inn

Holiday Inn Guelph is located 1.6 kilometers west of campus. It offers an indoor pool and high-speed internet service. The Holiday Inn is conveniently located beside Stone Road Mall where you can board city bus #52 direct to the University of Guelph. If we have a large contingent staying here, we can arrange shuttle service to and from campus.

The conference rate is \$138 single/double if you book by June 13.

See the Holiday Inn <<http://www.ichotelsgroup.com/h/d/hi/1/en/hd/yguca?irs=null>> site for more information. To book, you must use the hotel accommodation form.

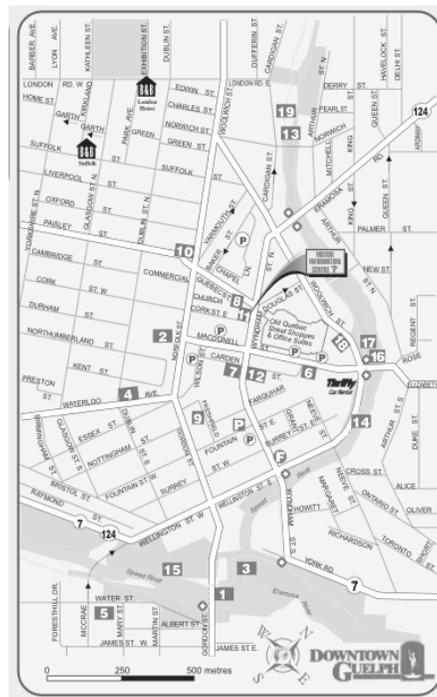
### Local Transportation

Taxi service from the University to downtown Guelph is approximately \$8.00.

City bus service is available from downtown bus and train stations to campus accommodations.

Adult bus fare is \$2.00 and exact change is required. Ten tickets can be purchased for \$17 at the Information Desk in the University Centre, at Robinson's Flowers downtown on Wyndham Street, and at various stores in Guelph.

Buses operate Monday through Saturday, leaving St. George's Square downtown at quarter to the hour and quarter after, commencing at 5:45 a.m. and every half hour until the last trip out of the downtown Square at 12:15 a.m. Buses operate Sundays, leaving St. George's Square at quarter to the hour and quarter after, commencing at 9:15 a.m. and every half hour until the last trip out of the Square at 6:15 p.m.



### Routes

The most direct route between downtown and campus is Route #52. Downtown, you can board the #52 bus next to the fountain in St. George's Square, a short walk from the Greyhound Bus Terminal and the Via Rail Station. The main bus stop on campus is in front of the University Centre. All the buses that enter campus stop at the "UC". There are also bus stops at various points around U of G's ring road.

The on-campus townhouse accommodations are served by #52, which stops on East Ring Road at the corner of Arboretum Road, almost directly opposite the townhouse complex. To go downtown from campus, you can pick up a bus at this stop or at the University Centre in front of the Albert A. Thornbrough Building.

### Computer Services/Internet Access

Computers are available for use at the McLaughlin Library on campus. There is no user charge. These computers are equipped with a wide variety of software as well as internet access.

If you need to print or photocopy, you will be required to purchase a vendacard. These are available at self-service machines on the main floor of the library. The library's hours are 7 am to 2 am (may change during the summer—have to find out.)

### Guelph and Surrounding Area

For everything you ever wanted to know about Guelph, visit the City's website at <http://www.guelph.ca>.

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### *Restaurants and bars*

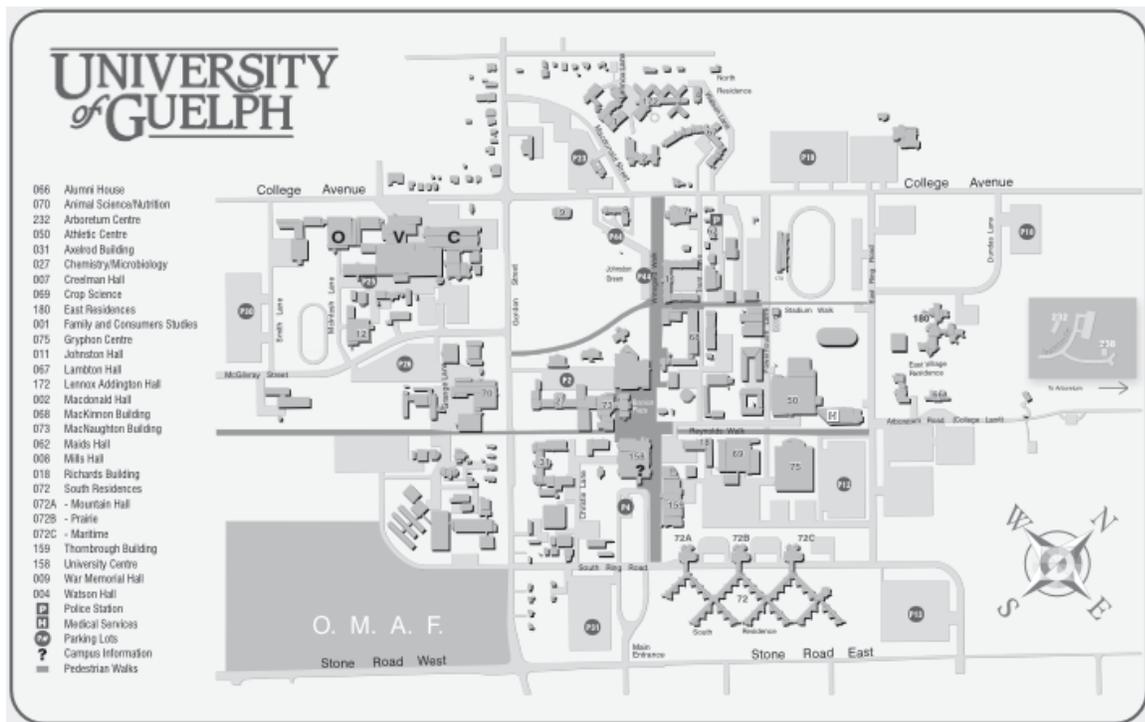
Downtown Guelph offers a culturally-diverse choice of fine dining establishments, family-friendly restaurants, intimate cafÈs, and bars. Many have outdoor patios which can be the perfect spot to spend some time on a summer evening.

### *Shopping*

Whether you're looking for funky boutiques, large shopping malls, antique markets, country or city farmers' markets, or specialty shops, there's a little bit of everything in and around Guelph.

### *Activities*

Walk, bike or hike the many trails through Guelph. Join in



*An interactive map of the campus is available at <http://www.uoguelph.ca/campus/map/>*

planned activities, like walking tours of the city. Rent a canoe and get a totally different view of the city from the water. For an up-to-date list of festivals and events, please visit the city's website.

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## **Notice about Membership Renewals**

Members are invited to renew when they register for the biennial meeting. Since all memberships run for two years, this process keeps everyone on track, and helps us minimize additional mailings and reminders.

If you are unable to attend a meeting, and forget to renew, we will include a reminder with the fall Newsletter following the meeting.

Your renewal date is always printed on the mailing label for the Newsletter.

If you currently need to renew, your mailing label will read "Dues through 2004," indicating that you have not paid since 2003. You may renew your membership when you register for the meeting. If

you are not attending the meeting in Guelph, please visit our website to use PayPal service to pay by credit card! You may also download a renewal form and mail that to Keith.

In the past, we have kept sending Newsletters to members after their memberships have lapsed, in the hope that they would renew when they attended the next meeting. Because of increasing costs, and to avoid sending Newsletters to people who no longer wish to receive them, the fall issue of odd-numbered years will be the last that people with an even-numbered "Dues through" date will receive.

If you ever have any question about your membership status, feel free to contact Chris Young, [secretary@ishpssb.org](mailto:secretary@ishpssb.org)

# New Volume for Your Library's Reference Shelf

*The New Dictionary of the History of Ideas (NDHI)* is a new six-volume reference work revising the original 1974 Dictionary of the History of Ideas, which has long been admired as a landmark document encapsulating the thinking of an era. The thoroughly re-envisioned *NDHI* brings a gender inclusive and global perspective to bear on timeless questions about the individual and society. It also includes a significant number of new entries that historians, philosophers, students of the social and political study of the biology, as well as biologists would find very useful for teaching and research. Entries range from 1, 500-2,000 words (for entries like "Behaviorism") to 8,000-10,000 (for entries like "Biology," "Evolution," or "Medicine, European").

*New Dictionary of the History of Ideas* (Charles Scribner's Sons, 2004). Entries Pertaining to the History of Life Sciences/ Biological Sciences. Vassiliki Betty Smocovitis, Associate Editor, History of Science

BEHAVIORISM Nadine Weidman	ENVIRONMENT Alain Touwaide	HYGIENE Claire Hooker	NATURAL HISTORY Paul Farber
BIOETHICS Arthur Caplan Autumn Fiester	ENVIRONMENTAL HISTORY Thomas Pyke Johnson	LIFE Garland E. Allen	NATURAL THEOLOGY Thomas Dixon
BIOLOGY Vassiliki Betty Smocovitis	EUGENICS Garland Allen	LYSENKOISM David Joravsky	NATURE Max Oelschlaeger
CONSILIENCE Michael Ruse	EVOLUTION Vassiliki Betty Smocovitis	MEDICINE <i>China</i> Nathan Sivin <i>Europe and the United States</i> Harry W. Paul <i>India</i> Dominick Wujastyk <i>Islamic Medicine</i> Miri Shefer	NATURPHILOSOPHIE Fred Gregory
CREATIONISM Michael Ruse	GENETICS <i>History of</i> Robert Olby <i>Contemporary</i> Garland E. Allen		SOCIAL DARWINISM Peter Dickens
DEVELOPMENT Manfred Laubichler Jane Maienschein			WILDLIFE Max Oelschlaeger
ECOLOGY Robert P. McIntosh	HEALTH AND DISEASE W. F. Bynum	MIND Carl Zimmer	

## Upcoming ISHPSSB Deadlines

Register for the Guelph meeting (to remain on the program):	May 30
ISHPSSB Officer <b>Ballot</b> due to Lindley Darden:	June 1
Submit <b>agenda items</b> for the General Membership Meeting to Mike Dietrich:	June 1
Register for <b>accommodations</b> (to avoid late fees):	June 15
Guelph <b>meeting</b> opens:	July 13
Sessions <b>begin</b> :	July 14
General Membership <b>Meeting</b> :	July 15
ISHPSSB <b>Banquet</b> :	July 16
Sessions <b>conclude</b> :	July 17

# Nominees for upcoming ISHPSSB election

This article contains the Nominating Committee's slate for the ISHPSSB election, along with biographies of the nominees. Many thanks to all who suggested names and to the members of the Nominating Committee for their diligent work since January: Ana Barahona, Christiane Groeben, Nick Hopwood, Betty Smocovitis, Ida Stamhuis, Bruno Strasser.

We all owe many thanks to our current Officers and Council members who are preparing for the ISH05 meeting in Guelph in July: Michael Dietrich, President; Lynn Nyhart, Program Chair; David Castle, Local Arrangements Chair; the three council members who will step down after the Guelph meeting: Ana Barahona, Christiane Groeben, and Hans-Joerg Rheinberger, and the three continuing Council members: Joe Cain, Kathy Cooke, and Phil Sloan. Vivette Garcia Deister is the student representative to the Council; students elect their representative after the general membership meeting in Guelph. Students, plan to attend and vote! Garland Allen, the President-Elect, will take over after the Guelph meeting and then preside at ISH07 in Exeter, England. Gar is working to find a site for ISH09 in North America; if you are interested in being a host, contact him immediately.

Our current able and hard-working Secretary, Chris Young, and Treasurer, Keith Benson, have agreed to stand for reelection. We must also elect a President-Elect, who will become President for 2007-2009, a Program Officer for ISH07, and three members of the council for 2005-2009.

In choosing the following nominees, the Nominating Committee strove to achieve balance with regard to field, gender, nationality, and experience—not an easy task. We also sought to find Council nominees to complement the continuing members. We were pleased to have over 50 suggested names. We decide to nominate two Program Co-Chairs, Hans-Joerg Rheinberger and Staffan Mueller-Wille. As Staffan will be at Exeter through the ISH07 meeting, he can help with what has always been a demanding task of coordination between the Program Chair and the Local Arrangements Committee. Our sincere thanks to all we have agreed to be nominated. In accordance with the Society's by-laws, we also solicited nominations from the membership at large.

*Lindley Darden, Chair, Nominating Committee*

## Biographies of candidates

### President-elect biographies

*Scott Gilbert* is a professor of biology at Swarthmore College, Swarthmore, PA, USA. He received his MA in the history of science and his PhD in biology from the Johns Hopkins University. He is interested in the roles of gender in science and in the history, philosophy, and social studies of embryology, particularly as it interacts with genetics. He has written the textbook *Developmental Biology*, edited *A Conceptual History of Embryology* and is expecting this fall to publish *Bioethics and the New Embryology*. He has been credited with writing a revisionist history of genetics, which has become the Whig history of evolutionary developmental biology, and he was singled out as an evil influence by Gross and Levitt.

*James Griesemer*: I have been a member of ISHPSSB since 1983 (Denison) and served on the Council (Nominations and Elections and Prize Committees) from 1997 to 1999. I'm professor of philosophy at the University of California, Davis, founding director of UC Davis's Science and Technology Studies Program, and adjunct in the Population Biology

<p style="text-align: center;"><b>ISHPSSB 2005 election</b></p> <p style="text-align: center;">President-Elect (vote for one) Scott Gilbert James Griesemer Lynn Nyhart</p> <p style="text-align: center;">Program Co-Chairs (vote for the pair) Hans-Joerg Rheinberger &amp; Staffan Mueller-Wille</p> <p style="text-align: center;">Secretary (vote for one) Chris Young</p> <p style="text-align: center;">Treasurer (vote for one) Keith Benson</p> <p style="text-align: center;">Council (vote for three) Werner Callebaut Soraya de Chadarevian Sandra Mitchell Philip Pauly Jutta Schickore Edna Suarez</p>
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Graduate Group. I'm on the editorial boards of *Biology & Philosophy*, *Biological Theory*, and *Philosophy of Science*. My research in biology studies includes studies of the history, social organization, and philosophy of natural history, ecology, genetics, embryology, and evolution. My current project is a book on units of inheritance. As President, I will continue and strengthen our traditions of an open and welcoming environment for interdisciplinary scholarship, encouragement of younger scholars and informality. I will also seek out and encourage innovations such as the Society's "off-year" program.

*Lynn Nyhart*: I am Associate Professor in the Department of the History of Science at the University of Wisconsin–Madison. Having completed *Biology Takes Form: Morphology and the German Universities, 1800-1900*

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(1995), and coedited the *Osiris* volume *Science and Civil Society*. I am currently completing a book manuscript tentatively titled *Modern Nature: The Biological Perspective in Germany, 1848 -1925*, on ecological and biogeographical thought in German civic culture. I have served on the ISHPSSB nominating committee (1989-1991) and program committee (1997-1999), and am program chair for 2005. I have been coming to ISHPSSB meetings since 1985, and it remains the most intellectually stimulating meeting I regularly attend. I look forward to helping maintain and further develop the fruitful interdisciplinary exchange characteristic of this group.

### Program Co-Chair biographies

*Hans-Joerg Rheinberger* studied philosophy and biology at the universities of Tuebingen and Berlin. He received his Ph.D. in biology in 1982, and his habilitation in molecular biology in 1987. He was a scientific coworker at the Max Planck Institute for Molecular Genetics, assistant professor at the University of Lebeck, associate professor at the University of Salzburg, and since 1997, he is director at the Max Planck Institute for the History of Science in Berlin. He has numerous publications in molecular biology and in history of science, among them: *Toward a History of Epistemic Things* (1997), *The Concept of the Gene in Development and Evolution* (co-edited with P. Beurton and R. Falk, 2000), *The Mapping Cultures of Twentieth Century Genetics*, 2 Vols. (co-edited with Jean-Paul Gaudilliere, 2004)

*Staffan M. Iler-Wille* received his Ph.D. in Philosophy from the University of Bielefeld in 1997. After working for the German Hygiene Museum (Dresden) as a scientific curator, he joined the Max-Planck-Institute for the History of Science (Berlin) in 2000 to collaborate with Hans-Joerg Rheinberger in the project "A Cultural History of Heredity." Since 2004 he is holding a post as research fellow for philosophy of biology at the University of Exeter. He is author of a book on Linnaeus's "natural system" (*Botanik und weltweiter Handel* 1999) and has published articles on the history and epistemology of natural history, genetics, and anthropology.

### Secretary biography

*Chris Young* is an assistant professor of biology at Alverno College in Milwaukee, Wisconsin. He has served as ISHPSSB's newsletter editor since 1996, and secretary since 1999. He completed a Ph.D. in the history of science and technology at the University of Minnesota in 1997. A book on the history of environmental science is due out from ABC-CLIO this spring, as part of the handbook series on Science and Society edited by Mark Largent. Chris considers it a privilege to work with the diverse, international membership of ISHPSSB.

### Treasurer biography

*Keith R. Benson* is an historian of biology, with a special interest in the history of biology in North America, the history

of marine sciences, the history of developmental biology, and biology & society. He is co-editor of *The Development of American Biology* and *The American Expansion of Biology*, edited the recent translation of Jacques Roger's book, *The Life Sciences in Eighteenth-century France*, and is co-editor with Fritz Rehbock of *The Pacific and Beyond*, a multi-authored history of oceanography. In 2004, he accepted the position of Principal of Green College at the University of British Columbia, where he is also a Professor in the Department of History. He is currently Treasurer of the International Society of the History, Philosophy, and Social Studies of Biology (ISHPSSB).

### Council biographies

*Werner Callebaut* is the scientific manager of the Konrad Lorenz Institute for Evolution and Cognition Research (KLI) in Altenberg, Austria, professor of philosophy at Limburgs Universitair Centrum, Belgium, and visiting professor in the Department of Theoretical Biology at the University of Vienna, Austria. He is a past president of the Belgian Society for Logic and Philosophy of Science. His interests are in theoretical biology (in particular, the interaction of development and evolution), philosophy of biology, and theories of economic and cultural evolution. He is a co-editor of the Vienna Series in Theoretical Biology (MIT Press) and the editor-in-chief of a new journal *Biological Theory: Integrating Development, Evolution, and Cognition* (MIT Press, 2006). His publications include *How to Take the Naturalistic Turn, or How Real Philosophy of Science is Done* (1993) and *Modularity: Understanding the Development and Evolution of Natural Complex Systems* (co-edited With Diego Rasskin-Gutman, forthcoming)

*Soraya de Chadarevian* is a senior research associate and affiliated lecturer at the Department of History and Philosophy of Science at the University of Cambridge. Currently she is spending a year at the Max Planck Institute for the History of Science in Berlin. She trained as a biologist, did her PhD in philosophy and, since then, has been working on the history of biology. Recently appeared *Designs for Life: Molecular Biology after World War II* (Cambridge University Press 2002). She has also published on 19th-century topics, on representational practices and historiographical issues. Currently she is working on genetics in the atomic age and on the 'commercial turn' in biology around 1980. She very much values the interdisciplinary and international orientation of the ISH community and their bi-annual meetings.

*Sandra D. Mitchell* is Professor and incoming Chair of History and Philosophy of Science at the University of Pittsburgh. Her research focuses on the epistemological and metaphysical implications of biological complexity. She has written on functional explanation, the units of selection, anthropomorphism and superorganism concepts, self organization and the nature of biological laws. Recent publications include *Biological Complexity and Integrative*

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## Introducing the 2005 Program: Read and Turn the Page!

Thanks to all of you who submitted papers and sessions, and to the program committee and friends who've worked over the past two years developing and soliciting sessions, we'll be serving up a rich feast of a program this summer in Guelph. Roughly 300 presenters from across the globe will be discussing their work in some 90 sessions that represent the breadth and interdisciplinarity characteristic of ISHPSSB. The most popular theme this year is visual representations, with seven sessions (and several more individual papers) stretching across the analytical and topical range of the history, philosophy, and social studies of biology. Other session topics reach back to early modern botanical nomenclature and forward to the future of programs in Ethical, Legal, and Social Impacts of bioscience. Sessions run the gamut from popular natural history to philosophical problems of function, and from bioeconomics to morphometrics. And of course, the history, philosophy, and social studies of evolution and genetics are robustly represented, beginning with a double session, dedicated to the memory of Ernst Mayr (honorary past president of ISHPSSB), on new perspectives on the Darwinian Revolution as a topic of research and teaching.

Saturday afternoon's plenary takes us in a new direction, with reflections on joining scholarship and social activism. Alice Dreger will talk about how her historical work on people with unusual anatomies (especially intersexes) has engaged her in working, within academia and beyond, to change biomedical policy and cultural attitudes. Brian Wynne, a sociologist of scientific knowledge, will talk about his engagement with such policy issues as nuclear "risk" in the 1970s and more recently, climate change and modern genomics, and how these intersect with his research goals. Biologist, philosopher, and lifelong radical Richard Levins will reflect on his view of a "good life" as "intellectually challenging, politically revolutionary, and engaged in with people I love."

From "What is Life?" to "Whom Does Agricultural Research Serve?" this summer's meeting offers a plentiful mind-feast for its international roster of participants. Please save the dates, July 13-17, and join us in Guelph!

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*Pluralism* Cambridge 2003, "Anthropomorphism: Cross-species modeling" in Daston and Mitman (eds.) *Thinking with Animals*, Columbia 2004, "The Prescribed and Proscribed Values in Science Policy", in Machamer and Wolters (eds.) *Science, Values and Objectivity*, University of Pittsburgh 2004. She has served on the governing board of PSA, as program chair for PSA2002, is on the editorial board of *Philosophy of Science*, and was on the Nominating Committee of ISHPSSB from 1993-1994. She was a fellow of the Zentrum für Interdisziplinäre Forschung in Bielefeld, the Wissenschaftskolleg in Berlin and is currently a fellow at the Max-Planck-Institut für Gesellschaftsforschung in Köln.

*Philip J. Pauly* is a professor of history at Rutgers University and teaches in the graduate program in history of technology, environment, and health. His current project is on horticultural improvement, plant introduction, and pest exclusion in North America during the last 250 years. His most recent book, *Biologists and the Promise of American Life*, appeared in 2000. He has also written about the history of experimental biology, alcohol research, psychology, and science popularization. He has served on the councils of ISHPSSB and the History of Science Society, and has been an associate editor of the *Journal of the History of Biology*.

*Jutta Schickore* is assistant professor in the Department of History and Philosophy of Science at Indiana University (Bloomington). Her teaching and research aims to forge links

between history and philosophy of science, with a focus on historical and philosophical aspects of experimental practice and instrumentation in the life sciences. She has written about the entwined history of the eye and the microscope, vision studies in 19th-century Britain and Germany, the discovery-justification distinction, and the problem of errors, failures, and artifacts in biological research, and she has published in journals such as *Studies in History and Philosophy of Biology and Biomedical Sciences*, *Perspectives on Science*, *Science in Context*, and *Medizinhistorisches Journal*. In her current research project, she is exploring the idea that we 'learn from error'.

*Edna Suarez* is Professor at the National University of Mexico. Her interests focus on the philosophy of experimental traditions and technology, and the history of Molecular Evolution. She has been a visiting scholar at the University of California at Irvine and Harvard University. Her publications include: "Satellite-DNA: a case study for the evolution of experimental techniques", *Studies in History and Philosophy of Biological and Biomedical Sciences* (2001); and Suarez, E. y A. Barahona, "The experimental roots of the Neutral Theory of Molecular Evolution", *History and Philosophy of the Life Sciences* (1996). She participated at the local organizing committee of the ISHPSSB meeting at Oaxaca in 1999 and she is part of the Editorial Board of *History and Philosophy of the Life Sciences*.

# ISHPSSB Meeting in Guelph, July 13-17, 2005

## Preliminary Program

### Wednesday July 13

Registration begins at 3 p.m.

Reception begins at 6 p.m.

(\*denotes session organizer)

### Thursday July 14

8:45-9:15: Welcome and opening announcements, including a brief remembrance of Ernst Mayr by Richard W. Burkhardt, Jr.

#### Thursday AM Session I (9:15-10:45)

Revisiting the Darwinian Revolution I: In Memoriam—Ernst Mayr (Organizer: Jane Maienschein)

Discussion of Spring 2005 Special Issue of the *Journal of the History of Biology*: Comments by Phillip Sloan, Robert Richards, Alan Love, Gregory Radick

Addressing papers by Michael Ruse, Peter Bowler, Pietro Corsi, Michael Ghiselin, Sandra Herbert, Jonathan Hodge, David Hull, James Lennox, Betty Smocovitis, with discussion by the authors.

Evolution of Cultural Novelty I

Kim Sterelny (Australian National University): Constraints on cultural adaptation

Ben Jeffares (Australian National University): Cultural variation and epistemic access

\*Kenneth Reisman (Stanford University): When does cultural selection explain cultural novelty?

Knowing, Interpreting, and Engaging with New and Old Biocomplexities

Peter Taylor (UMass Boston): Life course origins of chronic diseases: How to reconcile the contributions of competing epidemiological approaches

João Arriscado Nunes (University of Coimbra): The (unruly) complexity of carcinogenicity, or, how *Helicobacter pylori* “causes” cancer

Maria Strecht Almeida (University of Porto): Scale shifts, complexities and comprehensive knowledge: Exploring the construction of the “aging erythrocyte” as a biomedical object

English Pioneers of Heredity

\*Nancy Hall (University of Delaware Academic Center): Ronald Fisher and human blood groups

Eileen Magnello (University College London): Karl Pearson on Mendelian genetics and his chi-square tests

James Tabery (University of Pittsburgh): R.A. Fisher, Lancelot Hogben, and the origin(s) of genotype-environment interaction

Discussant: Rob Skipper

Regulating Modern Biology: Public Policy and Biology after the Second World War

\*John Emrich (George Washington University): The first clone war: Creating a national recombinant DNA policy in the United States

David Valone (Quinnipiac University): The politics of mass sterilization: Eugenics, public policy, and the emergence of the worldwide population control movement

Rana Ahmad (University of British Columbia): A new approach to the ethics and public policy of biotechnology

Parts and Wholes: Organisms, Ecosystems, and Environments

Elias Khalil (Konrad Lorenz Institute): What is an organism?

Angela Weil (Technische Universität München): The model of the organism in ecology: possibilities and boundaries for describing synecological units

Angeliki Lefkaditi (Aristotle University): A Discussion on “Part makes whole, and wholes make parts”

Brett Buchanan (DePaul University): The Kantian biologist: Jakob von Uexküll and the subjective life of organisms

## Theory Testing and its Vicissitudes

Fiona Miller (McMaster University) and Jason Robert (Arizona State University): Emerging science in genetic testing: Toward a better bioethics

Igal Dotan (MPI for History of Science, Berlin): Instruments in flux

Jennifer Swindel (Michigan State University): Empirically replaying life's tape

Derek Turner (Connecticut College): Just another drug? A philosophical assessment of randomized, controlled studies of intercessory prayer

## Thursday AM Session II (11-12:30)

Revisiting the Darwinian Revolution II: In Memoriam—Ernst Mayr

Teaching the Darwinian Revolution: A workshop (led by John Lynch)

Evolution of Cultural Novelty II

James Griesemer (University of California, Davis): Reproducers and the evolutionary development of culture

Linnda Caporael (Rensselaer Polytechnic): Core configurations that can think, learn and create

William Wimsatt (University of Chicago): Generative entrenchment and the scaffolding of individual development and social institutions

Infections and Immunities: Historical Perspectives

Leo Slater (Office of NIH History and NIAID): Monkey malaria in Memphis & Malaysia: NIAID and malaria eradication in the 1960s

Susie Fisher (Open University of Israel): Just discovered, swiftly applied: Bacteriophage therapy during the early years of the 20th century in the United States

Andrea Grignolio (Boston University): Historical reassessment of the theoretical genesis of clonal selection theory

## Morphometrics, the Singular-value Decomposition, and Death Row

Fred L. Bookstein: My unexpected journey in applied biomathematics: Morphometrics, the singular-value decomposition, and death row.

Werner Callebaut (Konrad Lorenz Institute): Introduction of the discussion

Jason Scott Robert—first discussant

Peter Taylor—second discussant

Fred L. Bookstein: Reply

## Imagery in Science and Science Imagery

\*Jinnie Garrett (Hamilton College): Just who do they think we are? Imagery in advertising in *Science* and *Nature*

Laura Landen (Providence College): Picturing a forest: Using images to illuminate concepts

Ellen Landers (James S. McDonnell Foundation): Imaging the brain, imagining the brain: The popularity and power of neuroimages

## Natural Kinds

Thomas Reydon (University of Hannover): (Why) Do the life sciences need natural kinds? And (how) could they get them?

Todd Grantham (College of Charleston): Species are not explanatory kinds

Bill Rottschaefter (Lewis and Clark College): The many places of knowledge in nature: Reflections on Hilary Kornblith's knowledge and its place in nature

## Plant Pathology in Historical Context

\*Christina Matta (University of Wisconsin-Madison): The science of starvation: Anton de Bary and potato late blight

Karen-Beth Scholthof (Texas A&M): Ergot: Transition from a feared poison to a valued component of the material medica in the early 19th century

Paul Peterson (Clemson University): The USDA Barberry Eradication Program and the growth of applied biology in the early twentieth century

## Thursday PM Session I (2-3:30)

### Genomics and Identity Politics I

Ingrid Holme (University of Exeter): Sex genetics and personal identity

Kame Anthony Appiah (Princeton University): Folk biology and the genetics of race

Jay Aronson (Carnegie Mellon University): Post conviction DNA testing in the American criminal justice system

Susan Lindee (University of Pennsylvania): Provenance and the pedigree: The Pennsylvania Amish

### Rebels of Life: Iconoclasts and Innovators in Biology (Organizer and chair, Michael Dietrich)

Nathaniel Comfort (Johns Hopkins University): Rebel without a pause: the self-consciously iconoclastic career of Barbara McClintock

Oren Harman (Bar Ilan University): C. D. Darlington and methodological iconoclasm: Cytology, genetics, and evolution, 1932-1950

Judy Johns Schloegel (Indiana University): Tracy Sonneborn, convention, and unconventionality in cellular heredity

Raphael Falk (Hebrew University, Jerusalem): "An eight-petalled form stands to a four-petalled form as a note does to the lower octave"

Mark Borrello (University of Minnesota): Dogma, heresy and conversion: Wynne-Edwards' crusade and the levels of selection debate

### Explaining Development

Vivette Garcia-Deister (UNAM): Part-based explanations: an integrative taxonomy

Jesse Hendrikse (University of Calgary): Evolutionary explanation in, evolutionary explanation out

Alan Love (University of Pittsburgh): The structure and import of developmental genetic explanations of evolutionary novelty

### Design as Metaphor, Ontology, Metaphysics

Ian Ellis (Florida State University): A criticism of metaphorical explanations of biological function

Chris Zarpentine (Florida State University): Explanation and natural selection: A defense of the design-metaphor

Dan McShea (Duke University): How to explain complexity (adaptive, non-adaptive, and irreducible)

Arno Wouters (Leiden University): Organization and autonomy

### Aesthetic Values in Biology

Laura Nuño de la Rosa Garcia (Complutense University of Madrid) and José Luis Gonzales Recio (Complutense University of Madrid): Aesthetics inside biology: Aristotle's chisel and Kant's paintbrush

Julio Munoz-Rubio (UNAM): About the Darwinian concept of beauty

Naomi Dar (Haifa University): Are biological structures aesthetic objects?

### Ecosystems

James Justus (University of Texas, Austin): How should ecological stability be defined?

Jay Odenbaugh (Lewis and Clark College): From biodiversity functioning to ecosystem services to environmental policy: Is it safe to connect the dots?

Viorel Paslaru (University of Cincinnati): An analysis of functions in ecosystems

### Perspectives on Cognition and Psychology

David Kaplan (Duke University): The deep relevance of motor neuroscience

Stefan Linquist (Duke University): What are the adaptive functions of guilt and shame, or why aren't we all psychopathic?

Yuichi Amitani (University of British Columbia): Does ecological rationality solve the rationality debate (evolutionarily)?

L. W. McCall (University of Cambridge): Expanding evolutionary epistemology

## Thursday PM Session II (4-5:30)

### Genomics and Identity Politics II

Tudor Parfitt (University of London, SOAS): Jewish identities: The Gogodala in Papua New Guinea

\*Christine Hauskeller (University of Exeter): The politics of genomic identity

Roundtable discussion with participants from Session I.

Franz Unger-Sigmund Exner-Eugen Steinach: Nature's Flexibility and Physiology's Agenda for Humanity

Marianne Klemun (University of Vienna): Resources of useful plants and patterns of their worldwide distribution: Franz Unger's *Bromatorische Linie* (1857) between Humboldt's plant geography and the Vavilovian gene centres

\*Veronika Hofer (University of Vienna): The multiple agendas of a physiologist: Sigmund Exner's reading of John Stuart Mill

Cheryl Logan (University of North Carolina): The double gonad, die Umwelt des Keimplasmas, and the inheritance of acquired characteristics

### Popular Biology

Sherry Lyons (CDL Empire State College): Of sea serpents and griffins, plesiosaurs and *Protoceratops*: The meaning of fossils revisited

Frederick Davis (Florida State University): Animating science through popular science writing

Morgan Meyer (University of Sheffield): Where amateurs and professionals meet—the Luxembourg Museum of Natural History and its scientific collaborators

Erik Peterson (University of Notre Dame): Genes-for failure: the nature of the gene in secondary-school biology

### Explanation

Carla Fehr (Iowa State University): Mechanism and pluralism, concrete and ideal

Jacob Reimer (University of Chicago): Reductive, non-mechanistic explanations in neurobiology

Angela Potochnik (Stanford University): Phenotypic versus genetic models of natural selection

### Biology and Philosophies of Language

Jennifer Runke (University of Calgary): Metaphors in biology: More than heuristic devices

Leah Knight (Queen's University, Kingston): Transplanted poetics in sixteenth-century English herbalism

Jonathan Hodge, Gregory Radick, Roger White (University of Leeds): Darwin's selection analogies

Mohammadreza Memarsadeghi (University of British Columbia): Wittgenstein and Darwin: An essay on evolution and language

### Individuals, Environments, and Selection

Roger Sansom (Texas A&M University): Countering Kauffman: The natural selection of gene regulation networks

Karla Chediak (UERJ): The relation between individuation and evolution

Marshall Abrams (Duke University): The path space conception of components of fitness

Roundtable: FDISH (Future Directions of ISH)—The 1<sup>st</sup> ISHPSSB Off-Year Workshop

Discussion with Matt Haber (UC Davis), Grant Yamashita (UC Davis), Melinda Fagan (Indiana University), Patrick Forber (Stanford University), Vivette Garcia-Diester (UNAM), Andrew Hamilton (UC San Diego)

## Friday, July 15

### Friday AM Session I (9:00-10:30)

Endless Variety: Representations in Biology I

\*Edna Suárez ((UNAM): Representations as thinking tools: Satellite-DNA and laboratory practices

Michel Morange (Ecole Normale Supérieure): The role of two different but related graphs in the expansion of molecular biology between 1960 and 1980: The regulatory gene network and the intra-cellular signalling pathway

Carol Reeves (Butler University): Visual rhetoric and the prion

Maria J. Santesmases (CSIC España): Representing radioisotopes: Experiments and instruments in the visualization of life sciences in the post-WWII era

## Population Thinking I

\*Tim Lewens (University of Cambridge): Population thinking: A typology

Mohan Matthen (University of British Columbia): Population structure

Andre Ariew (University of Rhode Island): Essential differences between Darwinism and neo-Darwinism

## Mid-Twentieth-Century Biology

Astrid Juette (Konrad Lorenz Institute): A neglected hormone: From the “Ectohormon” to “pheromones”

Alistair Sponsel (Princeton University): Coral reefs as sites and subjects of US nuclear weapons testing

Igor Abdrakhmanov (University of Hamburg): DNA, Lysenko and the Institute of Biophysics

Lisa Onaga (Cornell University): Ray Wu and DNA sequencing

## Plant Identification in the Long 18<sup>th</sup> Century

Susan McMahon (independent scholar): Botany at the Jardin du Roi, 1680-1700.

Alexandra Cook (University of Hong Kong): Jean-Jacques Rousseau and plant identification

\*Sara Scharf (University of Toronto): The development of text-based techniques of plant identification in the long 18<sup>th</sup> century

Alexei Kouprianov (European University): J. G. Gmelin’s “Flora Sibirica” (1747-1769): An early reception of the Linnaean method in Russia?

## Naturalizing Teleology?

\*Charles Wolfe (Boston University): The concept of organism, a historical and conceptual critique

Gal Kober (Boston University): Teleology’s new clothes: Teleonomy and the notion of program

Luciana Garbayo (Boston University): Emergence in theoretical biology: The end of teleology?

Constantinos Mekios (Boston University): Organisms as networks: a theoretical view of the potential and the limitations of applied systems biology

## Analyzing Research Programs

Joshua Abraham (University of Florida): Comparing “Intelligent Design” and the Neo-Darwinian synthesis as research programs

Adelaida Ambrogi (Universidad de las Islas Baleares): A Lakatosian look at the present status of genetic research: The case of breast cancer

Ana Soto and Carlos Sonnenschein (Tufts University): SMT or TOFT: May we evaluate and decide according to Lakatos’s model?

Karori Mbugua (University of Nairobi): Explaining homosexuality: A Lakatosian appraisal of the endocrine research program

## Levels, Individuality, and Evolutionary Transitions

\*Peter Godfrey-Smith (ANU, Harvard): Local interaction, group selection, and evolutionary transitions

Brent Calcott (RSSH, ANU): Selection, variation, and development in major evolutionary transitions

Jura Pintar (Harvard): Strategic genes and the individuation of biological entities

## Friday AM Session II (11-12:30)

### Endless Variety: Representations in Biology II

Megan Delehanty (University of Pittsburgh): What do we get from visual access?

Sabina Leonelli (Free University of Amsterdam): Standardisation and abstraction: two ways to model *Arabidopsis thaliana*

Ana Barahona (UNAM): Science and Representation: the case of genetic maps.

Comment: Sabine Brauckman

### Population Thinking II

Christopher Stephens (University of British Columbia): Population thinking and virtue ethics

Frederic Bouchard (University of Montreal): Taking intra-generational success seriously for our understanding of fitness.

Denis Walsh (University of Toronto), Discussant

## Politics, Activism, and Biology

Scott Frickel (Tulane University): Becoming a scientist-activist: Institutional change and the emergence of contentious identities in environmental health research

Regina Horta Duarte (Federal University of Minas Gerais): Biology, anti-Darwinism and society in 1930s Brazil

Rachel Hoffman (Concordia University): Franz Boas, then and now: A historiographical context for Considering a scientific discipline

Susan Rensing (University of Minnesota): ‘Woman is the race’: Grassroots eugenics in nineteenth-century America

## Natural History as (A)vocation

William Leach (Columbia University): The happiness of thinking men: Butterfly hunters in America

\*Lynn Nyhart (University of Wisconsin–Madison): Nature domesticated? German aquarium-keeping before World War I

Jenny Beckman (Uppsala University): Academics as amateurs? Nature protection and the division of labour in botany

## Varieties and Limits of Mechanistic Explanation

Stuart Glennan (Butler University): Is there a mechanism of natural selection?

William Bechtel (UC San Diego): Biological mechanisms: Organization is key

Carl Craver (Washington University, St. Louis): Mechanisms and natural kinds

\*Elihu Gerson (Tremont Research Institute): Contact and communication as varieties of coupling

## Transitions and Thresholds

Stéphane Tirard (Centre François Viète d’Histoire): Aspects of the French botanists’ studies on the origin of life and on the limits of life at the beginning of the XXth century

Jeremy Kirby (Florida State University): Aristotle and his commentators on the persistence of somatic material

Jesús M. Siqueros (University of the Basque Country): Agency and the origin of life cycles at the dawn of multicellularity

Michael Trestman (UC Davis): Developmental polyphenism and evolutionary transition

## Roundtable: Son of ELSI (Ethical, Legal, and Social Impacts of Bioscience)

Discussion with John Dupré (University of Exeter), Paul Griffiths (University of Queensland), Jane Maienschein (Arizona State University), Karola Stotz (University of Pittsburgh)

## Friday PM Session I (2-3:30)

### Scientific Instruments in Natural History: The Case of Insect Collections I (Chair and commentator, David Hull)

Pamela Henson (Smithsonian Institution): Types, pests, and endangered species: A history of the United States National Entomological Collection

\*Kristin Johnson (Arizona State University): Rothschild’s insect collection: Moving from private to public spaces

Donald Opitz (University of Minnesota): Collecting entomological knowledge: Miss Balfour, the ‘Specialists’, and East Lothian butterflies, 1910-1930

### Towards an Epistemology of Biological Graphs I

Ariane Dröschner (University of Bologna): “What is a cell?": Wilson’s pictorial answer.

\*Sabine Brauckmann (Konrad Lorenz Institute): Fate mapping and *Gastreae*’s image

Denis Thieffry (University of Marseille): Graphical representation of genetic and metabolic circuitry.

Soraya de Chadarevian (University of Cambridge and MPI for the History of Science): The aesthetics of molecular modeling - sorting out the questions

### Evolution and Bioeconomics

Igor Popov (KLI-Vienna–St. Petersburg): Evolution on rails: Arguments for orthogenesis in the historical perspective

Robert G.B. Reid (University of Victoria): Biological emergences: Implications for bioeconomics

Janet Landa (York University): A bioeconomics-public choice theory of property rights: Sago Palms as private property

## Animal Behavior: Sociality, Altruism, and Punishment

Yasha Rohwer (Florida State University): Hierarchy maintenance and coalition formation: an alternative account of the origins of punishment.

Rob Wilson (University of Alberta): Conceptions of social organization in the biological world

Michael Sprague (Florida State University): Strategy holism in the theory of games: Is altruism a spandrel?

Joseph Olechnowicz (Florida State University): The origination problem in group selection

## Concepts of Cause in Biology

Andrew Hamilton (UC San Diego): Causation, stability, and invariance: Drawing the right continuum

Sandra Mitchell (University of Pittsburgh): When modularity fails

Kathryn Plaisance (University of Minnesota): Are different conceptions of cause a source of tension between behavioral genetics and developmental psychology?

\*C. Kenneth Waters (University of Minnesota): Replacing the homunculi interpretation of gene causation with a manipulability interpretation

## Classification at the Crossroads of Phylogenetics and Genomics

Claire Waterton (Lancaster University): Taxonomy at a crossroads: bringing to the fore the socio-technical implications of scientific visions within taxonomy

Lisa Gannett (St. Mary's University, Halifax): Tissue tags and DNA databases: Epistemological challenges facing population-based human genome research

Bertrand Yann (Södertörn Högskola): New developments in phylogenetic nomenclature, or when the inflation of specifiers threatens the freedom of systematicians

## Trailblazing the History of Molecular Biology in the 1960s and 1970s

Rena Selya (Harvard University): Ripples in the pool: The molecularization of biology departments

\*Doogab Yi (Princeton University): The development of recombinant DNA research at the department of biochemistry at Stanford University, 1968-1974

Joseph A. November (Princeton University): Information vital for the life scientist: biocomputing at Stanford University, 1963-1980

Discussant: Nathaniel Comfort (Johns Hopkins University)

## Friday PM Session II (4-5:30)

Scientific Instruments in Natural History: The Case of Insect Collections II (Chair and commentator, David Hull)

\*Jean-François Auger (Université Louis-Pasteur, Strasbourg): Leon Provancher's entomological collections: The changing uses of a scientific instrument

William Kimler (North Carolina State University): The Hope Collection as an ecological tool

Commentator: David Hull

## Towards an Epistemology of Biological Graphs II

Astrid E. Schwarz (Technical University of Darmstadt): Maps and diagrams in ecology, its aesthetical and transformational potential

Matthew Chew (Arizona State University): The (anti-?) aesthetics of invasion biology

A. Ross Kiester (USDA Forest Service): Aesthetics of biological diversity

Commentator: James Griesemer (UC- Davis)

## Constructing and Confirming Models in Population Biology

Elisabeth Lloyd (Indiana University): A Problem with pluralism

Patrick Forber (Stanford University): Elusive ecological evidence

Michael Weisberg (University of Pennsylvania): Robustness analysis in population biology

Discussant: William Wimsatt

## Intervening in Ecosystems

David Tomblin (Virginia Tech): The history of ecological restoration: A techno-scientific negotiation with nature and society

David Brownstein (University of British Columbia): A crop more valuable than the pampered fruit trees of the orchard: British Columbia conifer seeds, 1912-1940

Margareta Bergman (Umea University) and Sofia Akerberg (Umea University): Levels of acceptance for moose damage on forest in Sweden, 1940-2000

Christine Keiner (Rochester Institute of Technology): The new oyster wars: Debating the deliberate introduction of non-native oysters to the Chesapeake Bay

Matt Haber (UC Davis): A report on the First International Phylogenetic Nomenclature Society (IPNS) Meeting

Jason Baker (Indiana University): Historical and mechanistic conceptions of species, and the goals of biological classification

John Wilkins (University of Melbourne): Natural kinds and natural groups

Matthew Barker (University of Alberta): Species: Getting past the problems and to the taxonomy via cohesion

#### Function

Bence Nanay (UC-Berkeley): Is the aetiological notion of function scientifically unproblematic?

Alan Casselman (Florida State University): Teleology, intention, and metaphor: Understanding the function of evolution

Ulrich Krohs (Konrad Lorenz Institute): Applied biology: Where teleology really enters the stage

Marcel Quarfood (Södertörn University College): The Kantian perspective on functions

#### Using evolution to explain cultural phenomena

Grant Ramsey (Duke University): Why is it good to be cultured?

Maria Kronfeldner (Regensburg University): Objections against creativity as based on blind variation: selectionist processes, guided variation and cognitive mechanism in creativity

Snait B. Gissis (Tel Aviv University): Biological heredity and cultural inheritance in the two editions of Herbert Spencer's "The Principles of Psychology"

Paulo Abrantes (University of Brasilia, Brazil) and Charbel El-Hani (Federal University of Bahia): Darwinism self-applied: Gould, Hull, and the individuation of scientific theories

#### 5:45-7:15 pm: General Membership Business Meeting

#### 7:15-7:45 pm: Graduate Student Member General Meeting

#### Saturday AM Session I (9-10:30)

Whom does agricultural research serve? I

\*Jonathan Harwood (University of Manchester): Europe's Green Revolution: peasant-oriented plant breeding in Central Europe, 1890-1945

Karin Matchett (Independent scholar): What Green Revolution?: The failed promise of scientific corn improvement for Mexico

Harro Maat (Wageningen University): The discovery of the Indonesian rice farmer

Topics in Evolutionary Epistemology I (Chair: Fritz Allhoff)

Anand Vaidya (UC-Santa Barbara): Evolutionary biology and the epistemology of metaphysical modality

\*Fritz Allhoff (UC-Santa Barbara): The justificatory role of (evolved) moral intuitions

Ben Fraser (Australian National University): Sexual selection and the evolution of moral belief

Freud, Reiter, Huxley, and Mayr: Racial Science and Ideology, 1930s-1950s

Eliza Slavet (UC-San Diego): Subjectively pseudoscientific: Freud's racial theory of Jewishness

Andre Mineau (University of Québec at Rim), Gilbert Larochelle (University of Québec at Chicoutimi): Hans Reiter in France: The economic implications of political correctness in science

Bridget Hains (Independent scholar): Population biology as a way forward from racial science: Huxley and Mayr in the late 1940s

The Art of Observation

Rebecca Ellis (Lancaster University): The Joy of pattern recognition and the Jizz. Embodied appreciation, surveillance and conviviality: an approach to the aesthetics of biological recording in the UK

Jason Topton (St. John's College, Annapolis): Aristotle and two small, ugly, insignificant fishes

Maria Elice Brzezinski Prestes (Pontificia Universidad Catolica de Sao Paolo): Methodological parameters in the work of Lazzaro Spallanzani (1729-1799)

New Directions in Genomics (Chair and organizer: John Dupre, University of Exeter)

Maureen O'Malley (University of Exeter): Disciplinary trends in genomics: systems biology and metagenomics

Adam Bostanci (University of Exeter): From human genome sequencing to human genomics

Richard Holdsworth (University of Exeter): Broadening human behavioural genomics

What is Life?

Carol Cleland (University of Colorado): The problem of defining 'life'

Rob Bennock (Michigan State University): Life forms and forms of life: Wittgensteinian & Darwinian insights on the meaning of life and alife

Mark Bedau (Reed College): Why ask 'what is life?'

\*Kelly Smith (Clemson University): How to understand the question 'what is life?'

Biology, Philosophy, and the Cultural Authority of Science

Kevin Amidon (Iowa State): Biology contra public sphere: Does Habermas really help us with the history of biology?

Kim Cuddington (Ohio State University) and Beatrix Beisner (Université du Québec de Montréal): Rhetorical appeals to philosophy of science in ecology

Melissa Lammey (Florida State University): Accounting for difference within the scientific community: Feminist strategies

Clifford Sosis (Florida State University): Am I a metaphysical bigot?

### Saturday AM Session II (11-12:30)

Whom does agricultural research serve? II

Stuart McCook (University of Guelph): Pathologists and peasants: Combatting the coffee rust in Costa Rica and Colombia, 1975-1990

Stephane Castonguay (CIEQ-UQTR): Between the trunk and the bark: forest entomologists, the spruce budworm and the pulp and paper industry in Canada, 1909-1973

Commentator: Garland Allen

Topics in Evolutionary Epistemology II (Chair: Anand Vaidya)

Sheldon Richmond (Independent scholar): How does thought evolve—rationally or irrationally?

Werner Callebaut (Konrad Lorenz Institute): How evolutionary is evolutionary Economics?

Kent Van Cleave (Indiana University): Kissing cousins: Mental representation and biological mimicry

The Development of Kant's Views on Living Organisms: Engaging Contemporary Studies of Life (\*Chair: Philippe Huneman)

John H. Zammito (Rice University): Kant's early views on epigenesis: The role of Maupertuis

Phillip R. Sloan (University of Notre Dame): Kant on the history of nature: The Critical Philosophy and natural history

Joan Steigerwald (York University): Immanent teleology: Reorientating the study of life

Revising the History of Genetics, 1900-1970

Grant Yamashita (UC Davis): Weismann, Hegner, and the germ plasm

Marsha Richmond (Wayne State University): Women in early American genetics: The Cold Spring Harbor Department of Genetics

Luis Campos (Harvard University): Mutatis mutandis: H. J. Muller's revisionist history and the meaning of "mutation"

Erika Milam (University of Wisconsin–Madison): The rare-male effect: Behavioral genetics and the evolution of natural populations

Metaphors in Genomics

Cor Van der Weele (Wageningen University): Metaphor and the art of dealing with genomics

Thierry Bardini (Université de Montréal): How junk became selfish

Marion Blute (University of Toronto at Mississauga): If the genome isn't a God-like ghost in the machine, then what is it?

## Witnessing Microscopy

\*Jutta Schickore (Indiana University): They “saw distinctly”—and yet they were deceived: Alexander Monro, Felice Fontana, and the limits of direct witnessing

Nancy Anderson (Université de Genève): Divided expertise: A case study in the collaboration of biologists and physicists in developing electronic imaging for cell biology

Aryn Martin (Cornell University): Counting witnesses and witnessing counts in human cytology, 1900-1956

Discussant: Michael Lynch

## Sociobiology in International Contexts

Andrew Yang (Duke University) and Osamu Sakura (Tokyo University): Divergent histories lead to divergent views? A comparison of conceptual perspectives among Japanese and North American evolutionary biologists

Sebastian Linke (Ernst-Haeckel-Haus Jena): Little science, big news: Relations between scientific and media discourses about sociobiology

Batya Zalinger (Open University of Israel): The sociology of sociobiology: An analysis of the ideological aspect of the discipline of sociobiology according to Antonio Gramsci

Shunkichi Matsumoto (Tokai University): The argumentation of sociobiology reexamined

## Saturday PM Session I (2-3:30)

### Perspectives on Immunology

Hyung Wook Park (University of Minnesota): Germs, hosts, and the Origin of Frank Macfarlane Burnet’s concept of “self” and “tolerance,” 1936-1949

Thomas Pradeu (Sorbonne University): From an immunological point of view: The move from ‘self’ towards interactionism to define biological identity

Julio Tuma (University of Chicago): Developmental sequestration, variation, and the vertebrate immune system

\*Melinda Fagan (Indiana University): Shared goals and interdisciplinary interactions in contemporary immunology

## Agricultural Sciences in Colonial and Post-Colonial Contexts

Frank K. Teng-Zeng (CREST, University of Stellenbosch): Institutionalization of agricultural science research in Africa: A historical overview of colonial and Western influences

Lisa Weasel (Portland State University): Social and historical tensions in the global debate over GMOs and agricultural biotechnology

Donato Bergandi (Museum National d’Histoire Naturelle, Paris): Sustainable development and nature protection: Between ethical and political duplicity

## The ‘Right Tools’: Methods, Model Organisms, and Fictional Species

Christiane Groeben (Stazione Zoologica Anton Dohrn): “For methods go to Naples” (1883) : he Stazione Zoologica as an originator and distributor of methods and tools

Nicole Nelson (Cornell University): Configuring the worm: Scientists as users and designers in *C. elegans* and *Planaria* research

Jessica Bolker (University of New Hampshire): Embodying imagination: fictional species in real science

## Visual Representations

László Nemes (University of Debrecen): Binoculars, cameras and nature films: Some epistemological aspects of ethology

Francisco Vergara-Silva (Natural History Museum, London): Representation, models and phylogeny: from cladograms to scientific realism

Laura Perini (Virginia Tech): Abstraction in biological visual representations

## Metaphor in Contemporary Biological Practice

Michael Bradie (Bowling Green State University): The changing metaphorical landscape of contemporary developmental biology

John Wilkinson (California Institute of Integral Studies): The rust in the machine: A metaphoric hermeneutic of evolutionary biology texts

Brendon Larson (UC Davis): The popularity of competition and progress: Results of a survey of two constitutive evolutionary metaphors

## The Molecular-Morphological Divide in Evolution

Roberta L. Millstein (Cal State East Bay): Neutralism vs selectionism: From snails to molecules

Anya Plutynski (University of Utah): The Levels of drift debate

Michael Dietrich (Dartmouth College): Modeling nucleotide substitution: Finding the best model for the data in molecular evolution

Robert A. Skipper (University of Cincinnati): The Hitchhiker's Guide to the paradox of variation

## Anomaly Analysis and Resolution in Biology

Kevin Elliott (Louisiana State University): Anomaly characterization and mechanistic explanation in Biology: A dialectical path toward discovery

Lindley Darden (University of Maryland College Park): Anomaly Identification and resolution for the central dogma of molecular biology

Douglas Allchin (University of Minnesota): Anomalies in Ox-Phos: Six of one theory, a half-dozen of another

Discussant: Jutta Schickore (Indiana University)

## Saturday PM Session II (4-6)

### PLENARY: Joining Scholarship and Activism

Alice Dreger (Michigan State University): History for the future: scenes from the life of a scholar-activist

Brian Wynne (University of Lancaster): Social studies of biology as policy action: Realist imaginations?

Richard Levins (Harvard University): Living the 11<sup>th</sup> Thesis

## Banquet (Payment required with registration): 7:30 p.m.

**Sunday, July 17**

## Sunday AM Session I (9-10:30)

Revising Etiological Theory of Function or Adopting Pluralism? I

Jean Gayon (IHPST [CNRS] & University of Paris I): Has oxygen a function in organisms?

Philippe Hunemann (REHSEIS (CNRS Paris)): Weak realism in the etiological theory of functions?

Françoise Longy (CNRS, Paris & Université Marc Bloch, Strasbourg): Etiological theories of function and functional hierarchies

Genealogy, Pure Lines, and Radiation. Toward a Cultural History of Classical Genetics I (Chair: Jonathan Harwood)

\*Staffan Mueller-Wille (University of Exeter): Between genetics and biometry: Franz Boas' concept of a 'family line', 1890-1912

Christina Brandt (MPI for the History of Science): From plant breeding to heredity. Clones and pure lines

Bernd Gausemeier (MPI for the History of Science): Genealogy and human heredity in Germany around 1900

## Biomedical Ethics

Jesse Steinberg (UC Santa Barbara): The morality of cloning and the problem of telomere shortening

Christopher Buford (UC Santa Barbara): Aborting metaphysics

Jon Umerez (University of the Basque Country): Critical assessment of the impact of ELSI (ethical, legal, and social impacts of bioscience) programs

## Beginnings of the Agricultural Sciences

Gilles Denis (Université de Lille 1): The creation of the Bussey Institution, between the Morrill Act and Harvard

Lloyd Ackert (Yale University): Organic matter and the rise of holistic agriculture: John Pitkin Norton and William Henry Brewer at Yale, 1840-1900

Rajeswari S. Raina (NISTADS, New Delhi): Origin of public patronage of agricultural research: Perpetuating the myth of autonomy and political neutrality

Akihisa Setoguchi (Kobe University): Inventing 'gaichu' (insect pests): The rise of economic entomology in Japan

## New Perspectives on Darwin

Daniel Becquemont (Université Lille III): Darwin's reaction to Galton's 'Theory of Heredity'

Hajo Greif (IAS-STG, Graz): The two souls of Darwinism: From Humboldt to the Newton of a blade of grass

Matthew Dunn (Indiana University): Darwin on the evolution of the human races

Ron Amundson (University of Hawaii at Hilo): Charles Darwin in new eyes: An evo-devo view of his achievements

## Information

Barton Moffatt (University of Minnesota): Systems Biology: An informational science?

Jessica Pfeifer (University of Maryland, Baltimore County): Information theory and complexity in animal communication

Sören Häggqvist (Stockholm University): Genes, parity, and content

## Concepts of Evolution: Natural Selection and Beyond

Jason Zinser (Florida State University): Organic, economic and scientific evolution: Diagnosing the desire to biologize everything

James Maclaurin (University of Otago): Natural selection: Its scope and limits

Richard Delisle (Université de Montréal): Julian Huxley on man

## Sunday AM Session II (11-12:30)

### Revising Etiological Theory of Function or Adopting Pluralism? II

Marie-Claude Lorne (Institut Jean Nicod, Paris): The etiological theory of function faces Tinbergen's four questions

Pieter Vermaas (University of Delft) and Wybo Houkes (University of Eindhoven): The problem of artifact functions: revising etiological theories and adopting pluralism?

Denis Walsh (University of Toronto): Function and natural teleology

### Genealogy, Pure Lines, and Radiation. Toward a Cultural History of Classical Genetics II (Chair and Commentator: Jonathan Harwood)

Jennie Marie (MPI for the History of Science): Animal breeding and its influence on the identity of genetics

Alexander Schwerin (TU Braunschweig): Towards a holistic understanding of the organism: The model organisms of German genetics in the twenties

### Commentary

## Model Search: Model Systems in Stem Cell Biology (Chair and Moderator: Jessica Bolker)

Rachel Ankeny (University of Sydney): What are stem cells?: The evolution of representations of model systems for stem cell biology

Lee Zwanziger: Levels of models in stem cell research

Mary Sunderland (Arizona State University): Translational developmental biology: Taking stem cells from the lab into the clinic

## Roundtable: Perspectives and Prospects for the History of the Plant Sciences (Organizer and chair: Kim Kleinman).

Discussants: Karin Matchett, Christina Matta, Philip Pauly, Betty Smocovitis

## Reasoning about the Organic Individual in the Nineteenth Century (Chair and commentator: Michael Ghiselin)

\*Ruthanna Dyer (York University): A question of the organism: The colonial hydroids and 19th century biology

Andrew Reynolds (University College of Cape Breton): Ernst Haeckel's discovery of the *Magosphaera planula*: a vestige of metazoan origins?

James Elwick (York University): What happened to 'spermatic force'? Analysis, palaeontology, Victorian biomedical research and young men in a hurry, 1845-1860

## Evolutionary Ethics

John Mizzoni (Neumann College): Evolution and normative ethics

John Collier (University of KwaZulu-Natal) and Michael Stingl (University of Lethbridge): Some reasons to believe that naturalistic ethics need not be reductionist

Marion Hourdequin (Duke University): Evolutionary ethics without error

Registration form

# Philosophy of Science, Technology and Society (PSTS) at the University of Twente, The Netherlands

## *Programme Profile*

PSTS is a two-year philosophical and interdisciplinary master programme with a focus on applied science and technology, and is intended for students with a bachelor's degree (or equivalent) in engineering science, natural science, biomedical science, mathematics, computer and information science, and environmental science. We also accept students with a bachelor's degree in philosophy or science and technology studies and at least some courses in science and engineering. These students follow a modified version of the program. We believe PSTS to be a unique master programme that has the potential to attract an international body of students who, coming from a science and engineering background, are interested to study the role of science and technology in contemporary society.

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## *Information*

Detailed information on the PSTS programme can be obtained from our website:

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In addition, upon your request, we are gladly willing to send you our brochure. Please send an e-mail with your postal address, and we will send you some brochures.

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## ***Between the farm and the clinic: Agriculture and reproductive technology in the twentieth century***

A one-day workshop, organised by Sarah Wilmot and Nick Hopwood, and funded by the Wellcome Trust, will be held in the Department of History and Philosophy of Science, University of Cambridge on Friday 29 April 2005.

### *Purpose*

The reproductive technologies that through the twentieth century were increasingly used to detach sex from reproduction continue to attract intense interest. But while the history, sociology and anthropology of reproductive medicine have been actively studied for several years, we have hardly begun to explore agriculture, the other major field of reproductive innovation, and its relations to medicine. The use of animal breeding as a resource for eugenics is clear and a rich body of research on the making of hormones has linked abattoirs with laboratories, pharmaceutical companies and clinics. Yet though Adele Clarke long ago highlighted the importance of the intersection of biology, medicine and agriculture in the making of the reproductive sciences, we still know very little about farms as sites of technological innovation in the reproduction of both other animals and human beings. This workshop aims to break new ground in two main ways. First, we want to

promote work on the making, organization and communication of reproductive knowledge among experts and laypeople in agricultural settings. We hope to bring together agricultural history with methodological insights from the sociology and anthropology of science, technology and medicine. Second, we want to explore the networks linking animal breeding, reproductive science, experimental biology, clinical medicine and the pharmaceutical industry. How have, not just raw materials, but also technologies and discourses, circulated between farms, abattoirs, research laboratories and clinics? To what extent and in what ways have farm animals served as a testing ground for technologies, from hormones to artificial insemination and embryo transfer, that were later developed for humans?

### *Participants include*

Adele Clarke; Christopher Polge; Sarah Wilmot; Abigail Woods; Paul Brassley; Naomi Pfeffer; John Clarke; Sarah Franklin.

For more information, including a booking form, please visit <http://www.hps.cam.ac.uk/medicine/workshop.html>.

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**Deadline for submissions for the fall Newsletter: October 25, 2005**