ISHPSSB

International Society for the History, Philosophy, and Social Studies of Biology

Spring 2007 Thirty-Fourth Issue Volume 18, No. 2

President's Semi-Annual Report
Garland Allen

I am happy to report that all arrangements for the 2007 meeting in Exeter, England, are moving along extremely well, thanks to the activity of the Program and Local Arrangements Committees. Hans-J˚rg Rheinberger and Staffan M¸ller-Wille, along with the rest of the Program Committee (Carlos Sonnenschein, Anya Plutynski, Christine Hauskeller, Elihu Gerson, Ana Barahona, Werner Callebaut and Carl Craver) have worked hard to put together an outstanding program, following the paper guidelines established at the 2005 meeting in Guelph. They report that only papers falling clearly outside the topic areas encompassed by ISHPSSB were rejected. Meanwhile, John Dupre and the Local Arrangements Committee (Cheryl Sutton, Keith Benson, Christine Hauskeller, Hans-J˚rg Rheinberger, Staffan M¸ller-Wille, Ginny Russell and Jane Calvert) are getting all arrangements set for registration. The meeting dates are Wednesday, July 25 until Sunday, July 29. We are all looking forward to what promises to be one of our best meetings yet.

Speaking of registration, it is important for all ISHPSSB members to be sure to renew your membership and register for the meeting. Please note: registration for the meeting is separate from both housing and meals, and from membership renewal. Visit the Society's webpage for membership renewal and the separate webpage for registration and to view housing options. Please remember that if you are presenting a paper you must register for the meeting by May 30. This is a requirement initiated by the Council in 2004 to insure that there are as few last-minute changes to the program as possible.

Exeter is not only a beautiful campus in its own right, located in a town of considerable commercial and historical interest, it is also well situated for access to many of England's most scenic regions. We hope this feature, along with the program, will attract members not only to the meeting but also to engage in pre- or post-meeting excursions. Cheryl Sutton, working with John Dupre and the rest of the Local Arrangements Committee, will provide information on the Egenis website (www.centres.ex.ac.uk/egenis/events/ishpssb/, which takes you right to the web page on the ISHPSSB conference) is also linked to the ISHPSSB website) and other contacts for folks

Byrne House, the Egenis Building

wishing to make such arrangements. Cheryl will also post information for all sorts of local attractions including great pubs and places to eat, as well as tours of historical sites.

At the meeting itself there will be an opening plenary session devoted to the topic of race and science, with outstanding talks by four prominent scholars in this field (see the Preliminary Program in this *Newsletter*). There will also be a general membership meeting on Friday afternoon, July 27, which we encourage all members to attend. If you have any issues you would like to raise at this meeting, please send them to me by June 1, 2007.

In addition to the general membership meeting and the regular sessions, there will also be a session, organized by Carl Craver, Chair of the Ad Hoc Committee on Publications, to discuss the issue of ISHPSSB publications: Whether the Society should consider some type of publication venue, and if so what form it should take (on-line only, on-line and hard copy, *etc.*) and how the publication should be organized (editor, co-editors, editorial committee, form of governance by the Society, editorial policy, and many other issues). I asked the Ad Hoc Committee to put together this session to continue the dialog begun two years ago with the proposal that ISHPSSB take over editorship of the existing journal, *History and Philosophy of the Life Sciences*. There was considerable interest among Society members in the prospect of publishing a journal, but there was also

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considerable diversity of opinion as to the form that publication should take. This session will provide a forum for continuing that discussion with members of the Ad Hoc Committee and Council members. I urge everyone with an interest in this topic to attend.

On another front, Mike Dietrich and the Nominations Committee – Edna Suarez, Nancy Hall, Paul Griffiths, Nancy Anderson, Michel Morange, Andrew Mendelsohn and Elihu Gerson – have worked very hard to assemble a slate of candidates for the various officers of the Society, including both Chris Young and Keith Benson, our long-time Secretary and Treasurer, respectively, who will step down after the Exeter meeting. I want to express my special thanks to the entire Committee for their efforts, and to the various candidates who have agreed to run for office. The success of our Society has always depended on the willingness of members to share in the responsibility for its organization and operation, so to all of you who have participated in this effort, past and present, again thanks on behalf of the Council and the entire membership.

The Society website has been updated and is being maintained by FrÈdÈric Bouchard with continuing help from Roberta Millstein. We are all much indebted to them for their work. Many thanks from all of us. The website plays a particularly important role for up-to-date information on the Exeter meeting, so be sure to consult it from time to time. Suggestions for website modifications can be sent to either FrÈdÈric or Roberta.

Looking ahead, Jim Griesemer and the Site Selection Committee – Keith Benson,

Manfred Laubichler, Cor van der Weele, Ana Soto, Alicia Villela, Oren Harman, and Jason Byron – have recommended unanimously, and the Council has accepted, the recommendation to hold the 2009 meeting at the University of Queensland in Brisbane, Australia. There was much discussion about the costs of travel but overwhelming enthusiasm not only from the Committee but from the overall membership, made the Brisbane offer an exciting choice. Keith Benson traveled to Brisbane for a site visit in February (hosted by the city's promotional agency) and brought back glowing reports (see his summary elsewhere in this *Newsletter*). The city and the university are beautiful, and accommodations are available off- as well as on-campus. The entire campus is wheelchair accessible. Thanks to Keith as well as the entire Committee for their work on selecting this site for 2009.

Speaking of "thank you", I want to take this opportunity to express the enormous amount of thanks and appreciation that I, the Council, and the Society as a whole owe to both Keith and Chris for all the hard work they have put in over the years. They took over their respective posts in 1999, and Chris additionally served as Newsletter editor beginning in 1996. Both of have given unstintingly of their time on behalf of the Society, and have provided continuity and sound management skills that have benefited not only the organization but each of us in a variety of ways. Keith has left the Society in extremely sound financial shape, and Chris has made the *Newsletter* an especially important avenue for conveying information and ideas in a way that knits the Society together during the long intervals between our meetings. In two such sensitive positions, where consistency and continuity are essential, we have been fortunate to have two such dedicated officers. We will miss them but hopefully now they will be able to come to ISHPSSB meetings and enjoy the sessions and other activities like most of us do, without responsibilities hanging over their heads.

I am looking forward to seeing everyone at Exeter in July. Meanwhile, if you have any questions or suggestions do not hesitate to get in touch with me or any of the Society's officers.

Garland E. Allen

Department of Biology
Washington University
St. Louis, MO
(314) 935-6808
allen@biology2.wustl.edu

Local Travel Details to Exeter

BY AIR

Exeter can be reached from most parts of the USA and Europe via connecting flights at Amsterdam or Paris, then an onward flight to Exeter via flybe.com or take one of the direct flights offered by many carriers into London Heathrow and an onward transfer by rail.

There are also direct flights from a number of European destinations and New York (Continental Airlines from Newark) into Bristol which is only 1.5 hours from Exeter by airport shuttle bus and train.

BY RAIL

There is usually an hourly direct mainline rail service from Paddington to Exeter which takes between two and half to two and three quarter hours.

If you fly into London Heathrow an express rail shuttle links the airport to London Paddington where mainline rail service to Exeter run from. The Heathrow Express rail shuttle service runs every 15 minutes and has a 20 minutes journey time. Altertively, there is a connection via London Underground taking the Picadilly Line to Earls Court then District Line to Paddington.

Trains run direct to Exeter from Bristol, generally two trains an hour on weekdays, with a journey time of approximately one hour.

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For more information on train running times visit the First Great Western website.

TAXI TRANSFERS TO THE UNIVERSITY
Taxi transfers from Exeter airport cost approximately £14 per cab, transfers from Exeter St David rail station cost approximately £3.50-£4.00.

Local cab companies often used by ourselves are:
Gemini Taxis (01392) 666666
Capital Cars (01392) 433433

BY COACH AND BUS
National Express operates services to Exeter from most towns and cities throughout the UK.

For local bus travel in Exeter contact Exeter Bus Station, Paris Street, Exeter: 01392 427711

Cathedral Green in the City Centre of Exeter

BY ROAD
Choose the M5 for travel between Exeter, Bristol, Cardiff, Birmingham. The M4 corridor connects Bristol to London. The A30/A303 and M3 offer a more scenic route to Exeter from London.

Travel time to Exeter

By road By rail
From London 3 hrs 30 mins 2 hrs
From Bristol 1 hr 30 mins 1 hr

Airport details

Heathrow is the UK's busiest international airport with 4 terminals serving over 180 destinations in over 90 countries. Travel from Heathrow to Exeter is via the Heathrow Express train to London Paddington and mainline rail service direct from London Paddington to Exeter.

The Heathrow Express train departure area is located beneath terminals 1, 2 and 3. Terminal 4 flight departures are located a short walk from the Heathrow Express platforms with lifts and escalators linking the departures and arrivals areas with the platforms. On leaving the arrivals area in any of the terminals simply follow the 'train' sign shown below to take you to the platforms.

The Heathrow Express platforms at London Paddington station are adjacent to those serving Exeter.

Through rail tickets for the journey to Exeter can be purchased on arrival at Heathrow from the rail ticket office. If you are able to, it may be advisable to use a travel agent to book rail tickets for you in advance. You can purchase rail tickets online yourself in advance and collected them from ticket machines on your arrival but we would advise caution as the fare structure is extremely complex. Cheaper tickets are valid only

University of Exeter Campus

for specific trains and it is generally not possible to make changes if you wish to use an earlier or later train. It is best to use a local agent or buy your ticket when you arrive in the UK.

Gatwick is a decent airport with good facilities. I attach a bit of text below about it. There are two other airports which are classed as London, which have a mix of charter and budget flights. One at Luton served by EasyJet which is relatively close to the capital (approx 30-40 minutes by train); the other is Stanstead which has a dedicated rail link to London but takes a long time and is expensive to transfer to and from — I personally wouldn't travel to Stanstead.

Information on Gatwick:

Gatwick is the busiest single runway airport in the world, the second largest airport in the UK and the seventh busiest international airport in the world. Around 90 airlines operate from Gatwick's two terminals, serving around 200 destinations.

The Gatwick Express rail link offers a dedicated, high-speed travel between central London and Gatwick Airport. It has a journey time of 30 minutes between London Victoria and Gatwick. The airport's railway station is right in the heart of the South Terminal at Gatwick Airport, a short walk from arrivals. If you fly in to the North Terminal, take a free automatic rapid transit service - operating every 3 minutes with a journey time of two minutes - to the South Terminal and Gatwick Express train station.

Once in central London, the London Underground Circle Line connects Victoria with Paddington for onward mainline rail services to Exeter.

Brisbane, 2009, Site Visit

From 18-25 February, I was fortunate to be able to visit Brisbane and Sydney as part of the site inspection for the proposed ISHPSSB meeting in July of 2009. Based on the experiences I had, both in observing the site for the meeting and in traveling around and between Sydney and Brisbane, it is my pleasure to recommend—with great enthusiasm—that ISHPSSB confirm its tentative vote in Guelph to schedule our meeting in Brisbane.

First, transportation between North America (I cannot speak for other routes) and Australia was surprisingly easy. There are direct flights from Los Angeles to both Sydney and Brisbane, as well as connecting flights from most other west coast airports and Sydney through Honolulu. Although the direct flight saves some time, the flight through Honolulu breaks up the long jaunt into two easy flights. Flights from Sydney to Brisbane are practically on the hour, so travel between those cities is also not a problem.

Second, Brisbane is a wonderful city in terms of local transportation. There is a train from the airport to downtown, the bus system throughout the city is superb, and there are foot ferries ("CityCat") plying the river that provide easy and fun access to the University from downtown. Additionally, Brisbane has twin "river walks" on both sides of the river (jogging and biking, too), with the south side including many river front restaurants and entertainment outlets.

Third, our proposed site, Emmanuel College at the University of Queensland, offers almost everything we need. There are slightly more than 300 rooms, including some for double accommodations (and a few multi-bedroom apartments as well), all priced very reasonable (about $60 AUD in 2007). Board is also available at a very modest cost (about $10 AUD this year). Additionally, the College has adequate meeting room space for all of our meeting needs, although we may need to locate a nearby large lecture hall for the plenary session. The College is also located immediately on the river, so time not spent in sessions may include discussions along the pleasant waterfront. For participants who desire off-campus housing, there are plenty of medium-range (and luxury as well) hotels and suites available downtown. Although this location is somewhat distant from the University, there is easy access by the "CityCat" (30 minutes), which doubles as a scenic tour. Buses also run regularly between downtown and the University, with a stop a short five-minute walk from Emmanuel College.

Thus, in terms of transportation to and from Australia, internal travel in Australia, and meeting site, I can find no major issues that are problematic. Even more important, however, is the physical setting of the meeting; that is, the physical beauty of Australia. We will be visiting during the Australian winter time, which should be great, since it can get more than a little warm in the summer and the winters are quite enjoyable. Brisbane is also a semi-tropical city, surrounded by rain forests and white sand beaches. I was fortunate to have the opportunity to visit both these locations and they are simply wonderful! Because Australia is so vast (as large as the continental US, with a population the size of Pennsylvania), it will be impossible for any of us to see it all during our meeting. However, it is almost imperative to plan at least a week (before or after) to visit the surrounding country. Brisbane is located adjacent to the famous "Gold Coast," which can be avoided for even more beautiful beaches at, for example, Byron Bay. On the way, one can also spend several days hiking in any number of national parks or, if the oceanic theme is what is preferable, in hiking on several sand dune islands located just north and east of Brisbane. For those with a more enological bent, wine touring is also a way to see the country. Australia is justly proud of its wines, many of which are not available outside of the country. Or, if you are really adventuresome, you can rent a van and head off into the outback, a short jaunt to the west of Brisbane but a long expanse beyond it. Whatever your outdoor passion is, Australia and the Australians will not disappoint.

Of course, the one element about the meeting that may cause some anxiety is the cost to travel to Australia. First and foremost, however, we must remember that our Australian colleagues (and there are many of them!) have to assume this cost each time we have a meeting in North America or Europe. Second, if the ISHPSSB meeting is considered to be part of an extended vacation, it is not an expensive trip, but a wonderful tax write-off! Actually, with advanced planning, flights may be quite reasonable, since our meeting time is not the peak travel time. Third, and finally, once in Australia expenses are quite modest. So, begin to make plans now and let's all meet along the banks of the Brisbane River and the Pacific beaches of eastern Australia.

ISHPSSB and *History and Philosophy of the Life Sciences* (HPLS)

Although it is unfortunate that ISHPSSB and HPLS were not able to agree to a formal association, there are two positive outcomes to the attempt to forge a relationship. First, HPLS is will to offer ISHPSSB members an extremely attractive offer to subscribe to the journal for $40/year. As other "special offer" journals, these subscriptions will be made through the Society's web page and the orders will be sent in through the Treasurer's office.

Second, HPLS would like to encourage ISHPSSB members to consider publishing recent scholarship in the journal. As members will note from reading the journal's editorial policy, it is keen to publish work in the history, philosophy, and cultural studies of biology, especially emphasizing the life sciences in the twentieth century. Although scholarship from any historical period will be considered, the journal seeks articles that are relevant to contemporary workers in the life sciences. For queries, please contact the journal's Editor-in-Chief, Keith R. Benson (krbenson@interchange.ubc.ca) or the journal's Managing Editor, Christiane Groeben (groeben@szn.it).

Citation for Marjorie Grene Prize

Sabina Leonelli, currently a Research Officer at the London School of Economics working on a project, "How Well Do 'Facts' Travel?," is the 2007 winner of the Marjorie Grene Prize for the best manuscript based on a presentation at one of the two previous ISHPSSB meetings by someone who was, at the time of presentation, a graduate student. Her submission,

"Performing Abstraction: Two Ways of Modelling *Arabidopsis thaliana,*" provides a fresh, interdisciplinary look at the traditional topics of abstraction in modeling and model-based explanations. Well-written, coherent, and thoroughly documented, the paper reconstructs the practices involved in recent research on the flowering plant *Arabidopsis thaliana*, a common model organism in plant biology. Leonelli successfully integrates approaches from sociology, philosophy, and history of science in her analysis, and focuses less on abstraction as a *characteristic* of models and more as a *practice* or "epistemic activity". Highlighting two distinct abstraction processes—material and intellectual—Leonelli also brings out the role of epistemic goals, commitments, and contexts among scientific communities in developing models. The paper ultimately gets at a more nuanced, complex understanding of abstraction in modeling and brings significant, original insight into the processes and practices of abstraction in biological research.

The Committee received nine entries of high quality—indeed, at least four of them are already published or in press. We want to express appreciation for the opportunity to be stretched beyond our own corners of interdisciplinarity. The various entries indicate admirably that ISHPSSB continues to play a role in stimulating innovative contributions within and across the fields of history, philosophy, and sociology of biology.

Peter Taylor (Chair) and Tara Abraham, on behalf of the rest of the Committee: Kevin Elliott, Lisa Gannett, Christiane Groeben, Sandra Mitchell, and Edna Suarez.

ISHPSSB and the "International" Secretary and Treasurer

Traditionally, the positions of secretary and treasurer have been filled by ISHPSSB volunteers. These stalwarts often continue to serve beyond the two-year term of the position. Thus, some of the continuity so important for ISHPSSB's institutional memory has been maintained. Additionally, the two individuals filling these positions, Chris and Keith, have been keen to maintain an "international" dimension to the offices; or, better put, they have ensured many locations for their offices. Thus, ISHPSSB has had institutional offices in Seattle, Mount Angel, Minneapolis, Washington (DC), Vashon Island, Milwaukee, San Diego, Walker (MN), and Vancouver (Canada). Furthermore, we have regularly conducted business for the Society while traveling around the globe. Of course, with the convenience of electronic communication, many ISHPSSB members have been unaware of all these offices and our movements; indeed, many members do not even know where Mount Angel and Vashon Island are located. This has enabled Chris and Keith to maintain the covert files of ISHPSSB and to conduct the Society's business "off-shore," physically, metaphysically, and metaphorically.

Here are some illustrations of recent locations of ISHPSSB's "international" offices. We are sure you will be impressed!

Nominees for the 2007 ISHPSSB Election

The Nominating Committee is pleased to present the slate for the 2007 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. They are Nancy Anderson, Paul Griffiths, Nancy Hall, Andrew Mendelsohn, Michel Morange, and Edna Su·rez.

We all owe many thanks to our current Officers and Council members. A special note of thanks must be given to Chris Young and Keith Benson who will step down this year as Secretary and Treasurer. Their efforts have sustained the Society for years and made possible much of ISHPSSB's success.

ISHPSSB 2007 election

President-Elect (vote for one)
- Ana Barahona
- Elihu Gerson

Program Co-Chairs (vote for the pair)
- Manfred Laubichler and Marsha Richmond

Secretary (vote for one)
- Roberta Millstein

Treasurer (vote for one)
- Lisa Gannett

Council (vote for three)
- Tara Abraham
- Christina Brandt
- Nathaniel Comfort
- John Dupre
- Jean Gayon
- Judy Johns Schloegel
- Betty Smocovitis
- Bruno Strasser

your official ballot is included as an insert with this Newsletter

In proposing nominees, the Nominating Committee strove to achieve balance with regard to field, gender, nationality, and experience. Finding candidates to fill some big shoes this year was not an easy task. Following the precedent set for this year, we decided to nominate two Program Co-Chairs, Manfred Laubichler and Marsha Richmond. In accordance with the Society's by-laws, we solicited nominations from the membership at large. Those nominated by two or more members and who have expressed their willingness to serve now comprise part of the slate.

Our sincere thanks to all we have agreed to be nominated.

Please return your ballot as soon as possible.

Michael R. Dietrich, Chair, Nominating Committee

Biographies of candidates

President-elect biographies

Ana Barahona

I joined the Society in 1991, when I attended the meeting at Northwestern University which David Hull hosted. At this meeting, I met people that I only knew from their written work and had the opportunity to communicate with many different scientists, philosophers and historians of biology. I was excited to hear as many presentations as I could, on topics old and new, and to browse the book exhibit with many titles that were not available in my country. I thought then that the Society was a great opportunity for myself and many scholars in "peripheral countries" to learn and communicate, and to participate in the growth and consolidation of the International facet of the Society. Since then, I have attended regularly, and served in various committees such as Nominations, Education, Program, and served as member of the Council from 2001-2005. I was the head of a group of Mexican scholars that thought that it was important to have the Society in Mexico. I was the Local Arrangements chair when we organized the 1999 meeting at Oaxaca. I think that this meeting was a great success, inasmuch as it was an excellent opportunity to support the creation and growth of the historical, philosophical, and social studies of biology in the United States, Europe, and abroad. No other organization is working towards the consolidation of an international community in these fields. For this reason, as president, I would work to increase international and graduate student participation in the Society, and offer networking opportunities for those who work in these fields.

I obtained my PhD in biology at the National University of Mexico (UNAM). During my doctoral studies I spent a year at Harvard University with Everett Mendelsohn, and was a postdoctoral fellow at University of California, Irvine, with Francisco J. Ayala. My area of research expertise is the history and philosophy of genetics, especially in Mexico, and the relation of epistemology and the teaching of evolution and natural sciences in education.

Elihu Gerson

My major research interest is in the organization of research in evolutionary biology. The main focus of my

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work has been on 20th century America, although I've also done some work in the longer-term history of natural history, and hope to expand that some day. I'm also interested in mechanism as a way of thinking about biological research problems. I've been a member of the Society since the organizational meeting of 1982. I served on the original Steering Committee and first Council (1987 - 1989), as Program Co-Chair in 1995 (Leuven), and frequently on the Program, Operations, and Elections Committees.

The Society should continue and strengthen our traditional commitments to interdisciplinary work, our openness to all perspectives and backgrounds, informality in proceedings, and encouragement of younger scholars. The Society's "off-year" programs have been very successful, and should be continued and developed further. We should also be exploring the potential of the Internet to enrich the amount and variety of useful communication among members, and this will be one of my major priorities.

Treasurer Biography

Lisa Gannett

Lisa Gannett is an associate professor in the Department of Philosophy at Saint Mary's University in Halifax, Canada. She received her PhD in philosophy of science from University of Western Ontario in 1998, and is pleased to note that since attending Leuven as a grad student in 1995, she's not missed an ISHPSSB meeting. Lisa is working on a book project Mapping Flies, Mapping People: Theodosius Dobzhansky and Populations in Genetics and is looking forward to being able to contribute more to the association.

Secretary Biography

Roberta Millstein

Roberta Millstein is an associate professor of philosophy at the University of California, Davis. She has been a member of ISHPSSB since 1994, having served as its webmaster from 2003-2005. She has served as the listserv moderator since 2001 and maintains the ISHPSSB bulletin boards. Her primary interests are in the history and philosophy of evolutionary theory, broadly construed to include everything from mutation to development to microevolution to macroevolution to its intersections with ecology, at the molecular level, the phenotypic level, and above — but she's been known to dabble in environmental issues as well. She despises writing autobiography but very much enjoys this friendly and welcoming society.

Program Officer Biographies

Manfred Laubichler

Manfred Dietrich Laubichler is a theoretical biologist and historian of biology. He works on conceptual and mathematical problems in Evo Devo, especially as they relate to social insects, the conceptual framework of theoretical biology and the history of developmental and theoretical biology. He is the co-director (with Jane Maienschein) of the Embryo Project, an NSF supported international project in the history of embryology/ developmental biology and recipient of an NSF CAREER award for his project "Twentieth Century Theories of Development in Context." He is associate editor of the *Journal of Experimental Zoology, Part B: Molecular and Developmental Evolution* and Founding Associate Editor of *Biological Theory*, and also edited *Der Hochsitz des Wissens. Das Allgemeine als wissenschaftlicher Wert* (with Michael Hagner, Diaphanes). *From Embryology to Evo Devo* (with Jane Maienschein, MIT Press), and *Modeling Biology* (with Gerd M¸ller, MIT Press).

Marsha Richmond

Marsha Richmond is Associate Professor of Science and Technology in the Interdisciplinary Studies Department at Wayne State University. She is a former Editor of the *Correspondence of Charles Darwin Project* and currently serves on the U.S. Advisory Committee. She is on the advisory boards of *NTM. International Journal of History and Ethics of Natural Sciences, Technology and Medicine*; *History and Philosophy of the Life Sciences*; *Journal of the History of Biology; Annals of the History and Philosophy of Biology;* and *Isis*. Her research focuses on the history of early genetics, 1900-1935; late nineteenth-century cell theory; and the entry of women into academic biology. She is currently completing a book on Richard Goldschmidt's work on sex determination, "The Making of a Heretic: Richard Goldschmidt and Physiological Genetics," and has received a National Science Foundation Scholars Award to investigate the work of American and British women in genetics, 1900-1935.

Council Member Biographies

Tara Abraham

Tara Abraham is an assistant professor in the Department of History at the University of Guelph in Guelph, Ontario, Canada. She has an undergraduate degree in biology from McMaster University, and completed her graduate work in history of science at the University of Toronto. She has held postdoctoral positions at the Dibner Institute for the History of Science at MIT in Cambridge, MA, and at the Max Planck Institute for the History of Science in Berlin. Her current research focuses on the work of cybernetician Warren S. McCulloch and the development of model-based approaches in brain and behaviour sciences during the mid-20th century. Her recent publications include "Nicolas Rashevsky's mathematical biophysics" *Journal of the History of Biology* (2004), "Cybernetics and Theoretical Approaches in 20th Century Brain and Behavior Sciences" *Biological Theory* (2006). A member of ISHPSSB since 2001, she has recently served on the Marjorie Grene Prize Committee (2005-07). She has also served for two years on the Programme Committee for the Canadian Society

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for the History and Philosophy of Science (2005, 2006).

Christina Brandt
Christina Brandt is currently a research scholar at the Max Planck Institute for the History of Science in Berlin. Her research aims to link the history of 20th century biology and cultural studies. She was trained in Biology and German Literature (Univ. of Goettingen) and she completed a PhD in the History of Science in 2002 (Univ. of Braunschweig). After working at the Centre for Literary Studies (Berlin), she began a project on the history of cloning at the Max Planck Institute in 2003. Since 2006 she is Research Scholar at this institute in the context of the 'Max Planck Society program for the advancement of outstanding woman scholars'. Her publications include a book on the history of virus research in Germany (*Metapher und Experiment. Von der Virusforschung zum genetischen Code* 2004), and articles on the history of molecular biology, metaphors in science, and on literature & science. In her current project she is exploring the history of the clone concept and experimental techniques of reproduction in the 20th century.

Nathaniel Comfort
Nathaniel Comfort worked in field neurobiology and science journalism before taking a Ph.D. in history in 1997 from the University at Stony Brook. From 1997 to 2002, he was on the history faculty at The George Washington University and served as deputy director of the Center for History of Recent Science, directed by Horace Freeland Judson. Since then, he has been an associate professor in the Department of the History of Medicine at Johns Hopkins. He is the author of *The Tangled Field* (Harvard, 2001), a biographical study of the geneticist Barbara McClintock, and the editor and an author of *The Panda's Black Box: Opening Up the Intelligent Design Controversy* (JHU Press, 2007). In addition, he is a PI on the Oral History of Human Genetics Project, jointly with researchers at UCLA. His current research is to try to make some sense out of the vast and bewildering world of post-WWII human genetics.

John Dupre
John Dupre received a PhD in Philosophy from Cambridge in 1981, and after two years as a Junior Research Fellow moved to the Philosophy Department at Stanford. In 1996 he returned to the UK to take up positions at Birkbeck College London, and Exeter. He is currently Professor of Philosophy of Science and Director of the ESRC Centre for Genomics in Society at Exeter (Egenis), host of the 2007 Ishkabibble meeting. His Publications include: *The Disorder of Things (*1993); *Human Nature and the Limits of Science* (2001); *Humans and Other Animals* (2002); and *Darwin's Legacy: What Evolution Means Today* (2003).

Jean Gayon
Jean Gayon is a Professor of History and Philosophy of Science and Technology at University of Paris 1. His research focuses primarily on the history of contemporary biology (evolution, genetics, and biometry) as well as epistemic issues in the life sciences. He is the author of numerous books and articles including *Darwinism's struggle for survival: heredity and the hypothesis of natural selection.* He is a long standing member of ISHPSSB as well as many other professional societies in France and the United States.

Judy Johns Schloegel
Judy Johns Schloegel holds a Ph.D. in history and philosophy of science from Indiana University. She is an independent scholar, soon to begin funding by the National Science Foundation to write a book on the history of American protozoan genetics that analyzes competing epistemic strategies in the use of model organisms. She is also engaged in a research project on the history of environmental research in the U.S. national laboratory context. Her interests include: nineteenth- and twentieth-century history of genetics, development, and evolution; epistemic practices in the history of the life sciences; and life sciences during the Cold War. She has held research positions at the Max Planck Institute for the History of Science in Berlin and Argonne National Laboratory. Her publications include "General Physiology, Experimental Psychology, and Evolutionism: Unicellular Organisms as Objects of Psychological Research, 1877-1917," *Isis* (with Henning Schmidgen, 2002) and "From Anomaly to Unification: Tracy Sonneborn and the Species Problem in Protozoa, 1954-1957," *Journal of the History of Biology* (1999). She is a winner of the 1997 Marjorie Grene Prize and has served on the ISHPSSB Marjorie Grene Prize Committee in 2003-2005.

Bruno J. Strasser
Bruno J. Strasser is an Assistant Professor of History of Science and Medicine at Yale University. His research focuses on the history of the biomedical sciences in the 20th century. His book, *La fabrique d'une nouvelle science: La biologie molÈculaire ‡ l',ge atomique, 1945-1964* explores the emergence of molecular biology as new scientific discipline and professional identity in the Atomic Age. It received the Henry E. Sigerist prize 2006. He is currently working on a new book project on collections and collectors in 20th century life sciences. He has published on the history of international scientific cooperation during the Cold War, the interactions between experimental science and clinical medicine, the transformations of the pharmaceutical industry, the development of scientific instrumentation, the role of collective memory, and the relationships between science and society.

Betty Smocovitis
Vassiliki Betty Smocovitis is Professor of the History of Science in the Department of Zoology and the Department of History at the University of Florida. She has held appointments at Athens University in Athens, Greece and in the Natural History Museum of Papua

New Guinea. She is the author of *Unifying Biology: The Evolutionary Synthesis and Evolutionary Biology* (1996 Princeton University Press) and *Plants, People and Politics: A Centennial History of the Botanical Society of America* (2008 Allen Press) along with articles in the history of modern evolutionary biology, botany and genetics. She is active in a number of scientific societies including the American Association for the Advancement of Science, The Society for the Study of Evolution and the Botanical Society of America, along with the History of Science Society. She has been a supporter of ISHPSSB since 1982 when she attended the "precursor" meeting at Cornell University while she was still a graduate student there. She has served on the Program Committee, the Nominating Committee, and the Education Committee.

ISHPSSB Meeting in Exeter, July 25-29, 2007

Preliminary Program

NB: This is a preliminary program, based on information collated from submissions. Please send any requests, corrections or additions you may have to Robert Meunier (meunier@mpiwg-berlin.mpg.de).

* session organizer

Wednesday July 25
16:00-20:00 Registration
20:00 Welcome Drinks

Thursday July 26
9:30-11:00 Thursday Plenary Session
Presidential Address

Race and Genomics: Old Wine in New Bottles? (Welcome Plenary Session)

George Ellison, Renato Mazzolini, Jenny Reardon, Sahotra Sarkar

11:30-13:00 Thursday Session I
Social and Technological Dimensions of Biology

Material transfer agreements and policy implications: strategies for research materials in biotechnology
Victor Rodriguez, Koenraad Debackere

Computers, chemistry and companies: the influence of the information concept in the automation of DNA sequencing (1980-1993)
Miguel Garcia-Sancho

Different disciplines, different perspectives on the pertinence of genomics to ways of studying human behaviour: lessons of interviews with researchers
Richard Holdsworth

Boundary objects in computational and mathematical biology
Annamaria Carusi

Intersections in the Evo-Devo Juncture

The nearly neutral theory of Evo-Devo?
*Roberta L. Millstein**

Varieties of intersection: specialties and collaboration networks
*Elihu M. Gerson**

Evolutionary developmental medicine
Jason Robert

The germ is dead – long live the germ!
Grant Yamashita

Emergence, Reduction and Biological Systems

Pluralism about emergence in biology
Mark Bedau

Metabolic circularity as a guiding vision for systems biology
Athel Cornish-Bowden, Maria Luz Cardenas

Emergence, causation and levels in biological systems
*Alexander Powell**

Chair: *John Dupre*

Human Automatism

Victorian physiology and human automatism
*Christopher Smith**

Contemporary automatism: the reification of willing
Holly Andersen

How emergence might overcome epiphenomenalism
Samuel Thomsen

Chair: *Christopher Smith*

Exploring Possible Publishing Venues for ISHPSSB (roundtable)

Gar Allen, Jason Byron (tbc)*, James Griesemer* (tbc)*, Jane Mainschein* (tbc)*, Kathy Cooke* (tbc)

Chair: *Carl Craver**

Logic of Discovery and Functional Ascriptions in Neuroscience: Bringing History and Current Research Together

The history of integration: from Spencer to Sherrington and later
Jean-Claude Dupont

The 'scientific phrenology' of David Ferrier: sensory-motor associationism as a paradigm for the 'birth' of cognitive neurosciences
Carmela Morabito

Continued on the next page

Causal role theory of functions and theoretical changes in neuroscience
*Denis Forest**

Chair: *Denis Forest**

Gender and Genetics

A Weimar mongrel: the debates in biology and art on gender, race, and genes
*Helga Satzinger**

Conflict, controversy, and gender in early genetics: selected case studies
Marsha Richmond

Nettie Maria Stevens and the controversy about biological sex determination
Isabel Delgado Echeverria

Chair: *Pnina Abir-Am*

Teaching Biology

Political science at the …cole Libre des Sciences Politiques (Paris), 1870-1890
Thierry Artzner

Textbook Authors and Textbook Salesmen: Contrasting Communities of Biology Knowledge Production
Adam Shapiro

Cytology textbooks, multidisciplinarity, and the making of the new science of aging in the United States, 1924-1945
Hyung Wook Park

Why teach history and philosophy of biology to biology majors?
Neil Haave

Neuroscience, Psychology, and Mental Representations

Digits, strings, and spikes: empirical evidence against computationalism
Gualtiero Piccinini

Mindreading and evolution
Paulo Abrantes

Transactional analogues: non-semantic representation in the mind and elsewhere
Kent Van Cleave

Disease: 17th to 19th Centuries

Syphilis, the Church, and the body: disease, cause, and treatment in 17th century England
Samantha Muka

Science, Religion and Politics: the Construction of Expertise on Cattle Plague in Pre-revolutionary France
Marion Thomas

Jacques Tenon, Felix Vicq d'Azyr, and the hospital reforms of the end of the 18th century in France
Antoine Ermakoff

19th century studies of hysteria and the work of Jean-Martin Charcot
Sarah Fisk

Inside and Outside the Laboratory

Between the laboratory and the deep blue sea: the lab-field border in the marine stations of Naples and Wimereux
Raf De Bont

War and biology: the transformation of entomological research in Japan, 1918-1945
Akihisa Setoguchi

The queer life of the lab rat
Mike Pettit

The rats of NIMH and the urban crisis
Edmund Ramsden

14:30-16:00 Thursday Session II

Multi-Level Selection and Major Transitions: Groups, Individuals, and the Units of Evolution I

What makes a group an evolutionary unit? Reliability and the transition to sociality in hymenopterans
*Andrew Hamilton**

Multilevel selection, evolutionary transitions, and adaptive complexity
Alirio Rosales

Chair: *Andrew Hamilton**

Evolutionary Meta-ethics I

Goodbye to the spooky faculty objection
Anand Vaidya

Moral minds: Still stumbling over the is-ought gap?
Ben Fraser

Minds, morals, and the evolution of intuition?
*Alison Niedbalski**

Chair: *Fritz Allhoff*

What Happened to Evolution After the Synthesis?

Was the modern synthesis really a synthesis?
*Jeffrey Schwartz**

The (almost) forgotten phenotype
Massimo Pugliucci

Where EvoDevo goes beyond the Modern Synthesis
Gerd Müller

Chair: *Jeffrey Schwartz**

Exploratory Experimentation in the Life Sciences

Exploratory Experimentation in Recent Molecular Biology and Genomics
Dick Burian

Varieties of Exploratory Experimentation in Nanotoxicology
*Kevin Elliott**

Metagenomics and the proteorhodopsin case: Exploratory experimentation and its transformative effects
Maureen O'Malley

Chair/Commentator: *Ken Waters*

The Statistical Roots of Biology

The role of evolutionary biology in the establishment of mathematical statistics
Eileen Magnello

Did Fisher's voluntary workers at Rothamsted make a difference in the spread of statistical techniques in agriculture?
*Nancy Hall**

Chair: *Nancy Hall*; Commentator: *Gregory Radick*

Rebels of Life: Iconoclastic Biologists of the 20th Century I

On rebels, icons, and the value of dissent
Oren Harman, Michael Dietrich

Hans Driesch, rebel with two causes
Garland Allen

Wilhelm Johansson: A rebel or a diehard?
Raphael Falk

Different research practices in early molecular genetics: Oswald T. Avery's and Max Delbrück's revolutionary findings and early responses
Ute Deichmann

Chair: *Michael Dietrich**

BioOntologies: A New Type of Theory in Biology?

The application of ontologies in the biomedical domain
Michael Ashburner

Bio-Ontologies: a new means of travel for biological facts
*Sabina Leonelli**

What lies beyond Babel? Lessons from the Worm Project
Rachel Ankeny

Chair: *Manfred Laubichler*; Commentator: *Massimo Pigliucci*

Theory in Biology

Popper's dance with Darwin
Michael Bradie

A story about story telling
Astrid Juette

Neutral theories and the unification of evolutionary biology
Julien Delord

Holism-reductionism debate in ecology, ethics and sustainable development
Donato Bergandi

Explaining Development

Why gene regulation networks are the controllers of ontogeny
Roger Sansom

What codes for what in development?
Michael Wheeler

It's not in your genes but the company you keep: phenotype, a view from the bench
Laura Vandenberg, Carlos Sonnenschein, Ana Soto

Scientific pluralism and the evolutionary explanation of development
Jesse Hendrikse

Functions I

Final causes as process prototypes
Boris Hennig

The select few: etiological functions and normativity
Sören Häggqvist

Function as an overarching concept
Francoise Longy

How systems fail: function, malfunction and dysfunction
Gillian Barker

History of Evolutionary Biology

Intimations of natural selection: Patrick Matthew and Charles Darwin's notebooks
Daniel Becquemont

'Darwin's delay': another historiographical myth?
John van Wyhe

Experimentation and the development of Lloyd Morgan's canon
Grant Goodrich

Unpacking the Evolutionary Synthesis: How can so many epistemological and metaphysical issues stand within such a compact explanatory structure?
Richard G. Delisle

16:30-18:00 Thursday Session III
Multi-Level Selection and Major Transitions: Groups, Individuals, and the Units of Evolution II

Darwinian populations and transitions in individuality
Peter Godfrey-Smith

Evolutionary transitions, levels of selection, and cross-level by-products
Samir Okasha

Chair: *Andrew Hamilton**

Evolutionary Meta-ethics II

Evolutionary theory and the deep vindication of moral beliefs: a response to Gibbard
Doug Walters

Against Evolutionary Error Theory: a contract-based alternative
Fritz Allhoff

Chair: *Alison Niedbalski**

Molecular Anthropology: Perspectives from History, Philosophy, and Human Geography

Natural genealogies and the objectivity of approaches, technologies and objects in molecular anthropology
*Marianne Sommer**

Mapping global mobilities: Family connections and difference in the genographic project
Catherine Nash

From flies to humans: the genetic basis of group identity
Lisa Gannett

Chair: *Marianne Sommer**; Commentator: *Jeffrey Schwartz*

Continued on the next page

Conceptual Development in Industrial Contexts: Breeding, Horticulture and Sericulture in the 19th and 20th Centuries

Mums as the Measure of Men: Global Plant Culture in the Nineteenth Century
Philip J. Pauly

Naturalizing Selection: Ronald A. Fisher and the Rothamsted Experimental Station, 1919-1933
Theodore Varno

Silkworm Breeding and the Development of Genetics in Meiji Japan
Lisa Onaga

Chair: *Jonathan Harwood*; Commentator: *Barbara Kimmelmann**

Anagenetic Optimisation Versus Cladogenetic Differentiation

The Frankfurt-theory of constructional morphology: an innovative but unknown approach for reconstructing anagenetic events and its actual importance for understanding chordate evolution
*Michael Gudo**

Anagenesis and cladogenesis in deuterostome evolution: well-known molecular phylogenies and well-forgotten morphological models
Tareq Syed

Chair/Commentator: *Mathias Gutmann*

Rebels of Life: Iconoclastic Biologists of the 20th Century II

Leon Croizat: A radical biogeographer
David Hull

Dan Simberloff and methodological succession in ecology
William Dritschilo

Bill Hamilton: A rebel for truth
Ullica Segerstrale

Chair: *Michael Dietrich**

Botany Between Knowledge and Science: Images, Interspaces, Experiences and Gender

Systematic botany in the romantic Vienna and "Voyages into the flower fields of life"
*Marianne Klemun**

Private letters, public discourse: The botanical correspondence of Mary Treat and Charles Darwin
Dawn Sanders

Discussing the "translation" of J. W. von Goethe's knowledge of nature into scientific literature for women
*Nicolas Robin**

Between Praxis and Episteme: The Herbarium as Boundary Object
Alexandra Cook

Communication and Aesthetics

Anthropo-biology in the 1940s: Jakob von Uexk¸ll, Norbert Wiener and Arnold Gehlen on the functional circle of inside-outside-relations.
Tobias Cheung

Signaling Processes and Biological Function: An Account of Signal in Cellular Biology
Barton Moffatt

The Evolution of Simple Communication Systems
Simon Huttegger

Are biological structures aesthetic?
Naomi Dar

Development, Inheritance and Evolution

Inheritance in Griffiths and Gray's Developmental Systems Theory
Peter Gildenhuys

A general theory of inheritance and its implications
Matteo Mameli

Fetal programming, predictive adaptive responses and gene-centric thinking
Beth Hannon

Developmental objections to evolutionary modularity
John Sarnecki

Functions II

What did Darwin do to teleology?
Arno Wouters

Developmental systems and etiological theories of teleology
Robert Gadda

Functions in the morphospace
Predrag Sustar

Systems of functions: functional attribution and functional decomposition in biology
Georg Toepfer

19th-Century Theories of Evolution

Vestiges of the Natural History of Creation in America: a quick response in the years 1844-1847
Albert Peacock

C. Darwin and J. D. Hooker: a controversy between friends
Anna-Carolina Regner

Alfred R. Wallace and his vision of anthropology and evolution
Juan Manuel RodrÌguez Caso, Rosaura Ruiz GutiÈrrez

Alfred Russel Wallace's claims regarding spiritualism
Juliana Ferreira, Roberto Martins

Friday July 27

9:30-11:00 Friday Session IV
Systems Biology: Computational Models Integrating Evolution, Function, and Design

Reconnecting evolutionary and descriptive biology: A network effect in systems biology
*Beckett Sterner**

Comparative and evolutionary genomics of *Azorhizobium caulinodans* as a case study for the workings of the post-genome era
Philippe De Backer, Dirk Gevers, Kyung-Bum Lee, Toshishiro Aono, Chi-Te Liu, Shino Suzuki, Tadahiro Suzuki, Takakazu Kaneko, Manabu Yamada, Satoshi Tabata, Doris M. Kupfer, Fares Z. Najar, Grahan B Wiley, Bruce Roe, Hiroshi Oyaizu, Marcelle Holsters

Anti-reductionism and modelling in systems biology: different perspectives
Joris Van Poucke, Philippe De Backer, Gertrudis Van de Vijver, Marcelle Holsters, Dani De Waele, Linda Van Speybroeck

Chair: *Gertrudis Van de Vijver*; Commentator: *Linda Van Speybroeck*

Social, Historical, and Philosophical Perspectives on the Inflation of Gene-related Knowledge

Getting real about genetics and genomics: An anti-realist perspective
*C. Kenneth Waters**

On the dynamics of laboratory research: Views on molecular genetics
Hans-Joerg Rheinberger

The promises of genomics: only society makes them reality!
Christine Hauskeller

Chair: *C. Kenneth Waters**

The Genomic Revolution, Revisited I

The material economy of genomic research: automation, work division, and productivity.
Vincent Ramillon

What does it mean to be 75% pumpkin: the units of comparative genomics
Monika Piotrowska

When is genetic analysis useful and sustainable? Perspectives on some new and old debates about genes and environment
Peter Taylor

Systems biology: the revolution after the revolution?
Jane Calvert, Joan Fujimura

Chair: *Edna Suarez**; Commentator: *Bruno Strasser**

Global Food Security and Science Policy: A Canadian Perspective (roundtable)

David Castle, Keith Culver, James Tansey*

Chair: *David Castle**

Episodes in the History of Speciational Mechanisms

Darwinism and the ever changing definitions of the 'inheritance of acquired characteristics'
Fern Elsdon-Baker

JBS Haldane and speciation: not a beanbag but a full bag
*Andy Hammond**

An epistemic community glued together: evolutionary studies in the 1930s.
Joe Cain

Chair: *Andy Hammond*

Darwinism in the 21st century: Beyond the Modern Synthesis I

Evolution of networks and networks of evolution
Ehud Lamm

The developmental aspect of heredity and evolution
*Eva Jablonka**

The "benevolent disorder" and recognition processes as conditions for the different adaptation strategies of prokaryotes, eukaryotes and humans
*Marcello Buiatti**

Chair: *Eva Jablonka**

Critically Assessing "The Changing Role of the Embryo" I (roundtable)

Raphael Falk, James Griesemer, Jonathan Hodge, David Hull, Carlos Lopez Beltran, Francisco Vergara-Silva, Rasmus Winther, Ron Amundson*

Chair: *Rasmus Winther**

Exploring Unknown Worlds

Could there be undetected alternative forms of microbial life on earth?
Carol Cleland

Search for extraterrestrial intelligence: a Kuhnian approach on the matter
Carlos Ochoa Olmos

Explaining the origins of life on earth: three explanatory schemes and a set of limit conditions
Christophe Malaterre

Ethics and Evolution I

Aristotle, again: J¸rgen Habermas, Leon Kass and the ethical self-understanding of the species
Benjamin Lazier

Evolutionary debunking theories of morality: Halting the slide from moral scepticism to global anti-realism
Aron Vadakin

Connections between purpose and value in nature
Angela Breitenbach

Evolutionary moral psychology and moral philosophy
Chris Zarpentine

Selection I

Forces and causes, probabilities and populations: clarifying the metaphysics of selection
Tim Lewens

Natural selection and the problem of reduction in life sciences
Bartlomiej Swiatczak

Two concepts of selection and their explanatory power
Bence Nanay

Has natural selection outlived its usefulness?
Patrick Bateson

Biomedicine

Methodological convergence of conceptual interpretations in medicine and taxonomy
Carlos Guevara-Casas

Network collaboration, tools of distributed work and IPRs in type-1-diabetes research
Juha Leminen, Reijo Miettinen

Continued on the next page

Building bioinformatic knowledge: interlinking social networks and producing a valid microarray experiment
Susan Rogers

Non-malfeasance and the privatization of biomedical research
Justin Biddle

11:30-13:00 Friday Session V

New Perspectives on Biological Systems

The Language of Living Processes
Brian Goodwin

Distributed and Local Causation in Systems Biology
*Jonathan Davies**

How Systems Biology Makes Sense of (Gen)omics
Ulrich Krohs

From Systems Biology To Evo-Devo And Back
Werner Callebaut

Chair: *Lenny Moss*

Talking to Scientists: Interpreting Interdisciplinary Communication

*Soraya de Chadarevian, Nathaniel Comfort, Elihu Gerson, Neeraja Sankaran, Gail Schmitt, Paul D. Peterson, Christina Matta**

Chair: *Christina Matta**

The Genomic Revolution, Revisited II

Natural history in the genomic age? The making of GenBank, 1982-1987
*Bruno J. Strasser**

Evolutionary tools and comparative genomics: continuity in the shadow
Edna Suarez, VÌctor-Hugo Anaya*

Navigating the post-Fordist DNA: network, regulations and variability in genomics and society
Christophe Bonneuil, Jean-Paul Gaudilliere

Chair: *Edna Suarez**; Commentator: *Bruno Strasser**

The Alberch Variations: Pere Alberch and the Cradle of Today's Evo-Devo

The Alberch Variations I: A reconstruction of the conceptual phylogeny of Pere Alberch within the tree of EvoDevo.
Laura NuÒo de la Rosa, Miquel De Renzi, Arantza Etxebarria, Diego Rasskin-Gutman

The Alberch Variations II: Alberchian variations on evolutionary palaeobiology
Miquel De Renzi

The Alberch Variations III. Developmental constraints and possible life
Arantza Etxeberria

The Alberch Variations IV. Evo-Devo today
*Diego Rasskin-Gutman**

Chair: *Diego Rasskin-Gutman**

Sociology of the Biology of the Social

Triangulation, social location and ophthamology: do you see what i see?
Sharyn Clough

Politicizing methodology: standardization debates in behavior genetics
Nicole Nelson

Neuronal expressivity: a new technology of innocence
Gesa Lindemann

Sociobiology and evolutionary psychology in the service of "instrumental rationality"
Batya Zelinger

Darwinism in the 21st century: Beyond the Modern Synthesis II

Location, location, location! Negotiating places and perspectives in a biodiversity database
Ayelet Shavit

From transmission to plasticity: the changing concept of heredity since the middle of the twentieth century
Ohad Parnes

Chair: *Eva Jablonka**

Critically Assessing "The Changing Role of the Embryo" II (roundtable)

Raphael Falk, James Griesemer, Jonathan Hodge, David Hull, Carlos Lopez Beltran, Francisco Vergara-Silva, Rasmus Winther, Ron Amundson*

Chair: *Rasmus Winther**

Environment and Ecology

But is it progress? On the alleged advances of conservation biology over ecology
Stefan Linquist

Inter-, multi- and transdisciplinarity in landscape ecology due to ideas of human (Menschenbilder)
Angela Weil

Growing biology in the National Laboratories: environmental studies research at Argonne and Oak Ridge, 1966-75
Karen Rader

Geographic range as a weakly emergent trait
Todd Grantham, Mark Bedau

Ethics and Evolution II

Altruism and morality: Is disentangling really necessary?
Tomislav Bracanovic

Biological explanations of human actions and the institution of responsible action
Barry Barnes

Virtuous behaviour need not be an evolutionary stable strategy
Vasco Castela

East meets West: Buddhism, neuroplasticity and mirror neurons. Revisiting evolutionary ethics
Sherrie Lyons

Selection II

What's fundamental about Fisher's fundamental theorem of natural selection?
Robert Skipper

What is "natural" in natural selection?
Abhijeet Bardapurkar

Selection vs. drift: apportioning causal responsibility
Jessica Pfeifer

Darwinian Themes

The nature of competition and competition in nature
Sara Schwartz

Evaluating the debate on genic selectionism: based on the heterozygote superiority case
Shunkichi Matsumoto

Individuation of biological entities: Could natural selection help individuate higher entities?
Pierre-Olivier MÈthot

14:30-16:00 Friday Session VI
Who is Highjacking Systems Biology? The Problem of Multilevel Explanation in Systems Biology

Physicalism, diachronic emergence and downward causation in experimental biology
*Ana Soto, Carlos Sonnenschein**

From the "DNA is a program", a misleading model and metaphor in molecular biology, toward the role of randomness and extended criticality of living entities
Giuseppe Longo

Middle-out hierarchical options in causation
Denis Noble

Is there nomological closure in explanations in biology?
Paul-Antoine Miquel

Chair: *Carlos Sonnenschein**

The Importance of Homology for Biology and Philosophy I

The phenomenon of homology
Griffiths Paul

Functional homology and homology of function
Alan Love

Typology now: Homology and developmental constraints explain evolvability
Ingo Brigandt

Chair: *Marc Ereshefsky**

Genes->Interpretation->Impact on Science or Society — What have ISHPSSBers achieved by critiquing genetic analyses (of various kinds)?

Bruno J. Strasser, Edna Suarez , VÌctor-Hugo Anaya, Christophe Bonneuil, Jean-Paul Gaudilliere, Vincent Ramillon, Monika Piotrowska, Peter Taylor, Jane Calvert, Joan Fujimura*

Chair: *Peter Taylor**

Carving Out Action Potentials: Electrophysiology and the Causal Structure of the Nervous System I

Causes without mechanisms: the Hodgkin-Huxley model revisited
*Marcel Weber**

The nexus, mechanisms and mechanism families
Daniel Sirtes

Woodward's modularity condition, the causal Markov condition, and the causal structure of the central nervous system
Don Goodman

Chair: *Marcel Weber**

Specimens and Nomenclature

Specimens: between nature and the zoological gaze
Taika Dahlbom

Metamorphosis of the private time: natural history as entrepreneurship in Early Modern Dutch Atlantic
Tomomi Kinukawa

DNA bar-coding: a mere tool or the potential to remake our relationship with life?
Rebecca Ellis

On sameness and reference in biological nomenclature
Yann Bertrand

The Impact of Symbiosis and Symbiogenesis on the Study of Evolution and Its Historical and Philosophical Implications I

Endosymbiosis and cell evolution: the history of an idea
Ulrich Kutschera

From symbiosis to symbiome: an epistemological approach
Francisco CarrapiÁo

Investigations of symbiosis and symbiogenesis in Russia
Andrew P. Sitnykov

Chair: *Natalie Gontier**

Metaphors in Biology

Towards an adequate theory of metaphor in biology
*Jennifer Runke**

The perspective metaphor of metaphor
Andrew Reynolds

Towards an ethics of biological metaphor: the case of promotional metaphors
Brendon Larson

Chair: *Jennifer Runke**

18th- and 19th-Century Biology

"If we only could combine Tournefort's drawings with Rivinus's definitions": the positive program by Johann Georg Siegesbeck (1686-1755) for systematic botany
Alexei Kouprianov

Felix Vicq d'Azyr's understanding of human cerebral structures and contribution to the field of brain anatomy in the late eighteenth century, in France.
Cherici Celine

Extinction in German Natural History, 1790-1830
Thomas Burnett

The Cambridge school of animal morphology, 1882-1910
Helen Blackman

Continued on the next page

Race in Biomedicine

The Mexican Institute for Genomic Medicine (INMEGEN) and the invention of the Mexican 'Mestizo' genome
Francisco Vergara-Silva, Carlos LÛpez-Beltr·n, Fabrizzio Guerrero-McManus

Clustering Humans: Boundaries and Properties
Ludovica Lorusso, Giovanni Boniolo

Found science: founding 'race' in science
Sophia Efstathiou

The business of racial criticism in biomedical research
George Ellison, Simon Outram

Models and Experiments

Bridging the gap between theory and experiment in ecology
Brad Wilson

Models-of and models-for: two modes of representation in biological research
Jessica Bolker

Idealization and model organisms
Monica Maria Marquez

Horizons for scientific practice: scientific discovery and progress
James Marcum

Ecology, Environment and Politics

Environmental information in a Greek forest reserve: Scientific rhetoric and images of nature
Ageliki Lefkaditou, Anastasia G. Stamou, Dimitrios Schizas, George P. Stamou

Native American Ecological Restorationists and the Politics of Restoring the Ecocultural Diversity of North America
David Tomblin

Public Participation in the Mutual Conformation of Science, Technology and Society as a Problem for Applied Ecology
Carlo Marcello Almeyra

Public Policy Implications of Environmental Mechanisms
Renard Sexton

16:30-18:00 Friday Session VII
Evolutionary Ethics in Evolution

Towards Analogues of Ordinary Morality in Apes
*Eric Charmetant**

The Impossibility of Evolutionary Realism
Christine Clavien, ChloÎ Fitzgerald

Normative Domains and Their Evolution
Nicola Knight

Can Naturalized Ethics Help Us Find Moral Truths?
Jerome Ravat

Chair: *Eric Charmetant**; Commentator: *Christine Clavien*

The Importance of Homology for Biology and Philosophy II

Behavioral homology and psychological categories
Marc Ereshefsky

Cognitive kinds and homology
Mohan Matthen

Chair: *Marc Ereshefsky**; Commentator: *Gerd Muller*

Reducing Anti-reductionism: Perspectives on Holism in the Life Sciences

Beyond atomism and holism: the anti-reductionist community in the 20th century
*Jamie Stark**

From classical holism to the biosemiotic turn, 1920-1940
Riin Magnus

Facts and values against the reduction of ethics to biology
Shane Glackin

Chair: *Sabine Brauckmann*

Carving Out Action Potentials: Electrophysiology and the Causal Structure of the Nervous System II

Theories, models, and equations in biology: the heuristic search for emergent simplifications in neurobiology
Kenneth Schaffner

Delineating the phenomenon for electrophysiology: Emil du Bois-Reymond and his students Ludimar Hermann and Julius Bernstein
William Bechtel

When mechanistic models explain: the Hodgkin and Huxley Model of the action potential
Carl Craver

Chair: *Marcel Weber**

Biota, Biology, Place, and Belonging

On the trail of the ivory-bill: science and the struggle to save an endangered species
Mark Barrow

H.C. Watson and the civil claims of "British" plants
*Matthew Chew**

Evaluating the risk posed by biological invasions
Nathan Robert Smith, Michael Trestman

The blueberry maggot goes to Harvard: Guy Bush, Ernst Mayr, and the controversy over sympatric speciation
Jesse Gryn, Christopher Buddle, Charles Vincent

The Impact of Symbiosis and Symbiogenesis on the Study of Evolution and Its Historical and Philosophical Implications II

Viruses as symbionts
Frank P. Ryan

Compositional evolution and symbiosis
Richard A. Watson

Ontological and epistemological implications of symbiosis and symbiogenesis
*Nathalie Gontier**

Chair: *Natalie Gontier**

Animal Minds

Simplicity and methodology in animal psychology: a case study
Simon Fitzpatrick

Vervetese and its Contexts
Gregory Radick

Convergent Minds? Examining some current assumptions in the study of comparative social cognition of apes, crows, dogs, children and other animals
Hugo Viciana, Hugo Mercier

Chair: *Ulrich Stegmann**

Palaeobiology and Phylogenetics

From weird wonders to stem lineages: the second reclassification of the Burgess Shale fauna
Keynyn Brysse

The trendiness of paleobiology
Derek Turner

Prior probabilities in phylogenetic inference
Joel Velasco

Rational disagreement in phylogenetics: maximum parsimony or maximum likelihood?
Fabrizzio McManus

Chair: *Ronald Jenner*

Varieties of Mechanism

Mechanisms, history and parts in compositional biology
Rasmus Winther

Can mechanisms replace laws of nature?
Bert Leuridan

The scorpion's sting: functions, mechanisms, and biomechanical explanation
Trevor Pearce

Ecological mechanisms
Christopher Eliot

Genomics: A New Paradigm?

Waddington's symposia: a retrospective assessment
Jon Umerez

"The Arrowsmith conjecture": concept "emergence" and the "genomic" revolution
Eric Hoffman

The Postgenomic Era and a New Systemic Paradigm in Biology?
Laurence Perbal

How scientists use kinds: genes and modules as a case study
Thomas Reydon

Biology and Society

Transgenic corn through the perspective of communication
Irama Nuñez, Ana Barahona

The emergence of animal law: on institutional conditions of research in life sciences in Germany, The USA and Japan
Nico Luedtke, Hironori Matsuzaki

Educating citizens: scientific literacy and public policy
Glenn Sanford

Justifying the moral agenda on genomics
Cor van der Weele

18:15-20:00 General Business Meeting

Saturday July 28

9:00-10:30 Saturday Session VIII Mechanisms and Causation in Ecology and Evolution I

Mechanisms in biology in hierarchical context
*Lindley Darden**

Systems biology and the mechanistic framework
Pierre-Alain Braillard

The increasing place of macromolecular machines in the descriptions of molecular biologists: What role do they play in explanations?
Michel Morange

Chair: *Robert Richardson*

Sports, Freaks, Monsters and Mutants: Toward a History of Mutation I

Sub-specific variation in the nineteenth century
Staffan Müller-Wille

Monstrosities and medical men: obstetric encounters with teratology in Britain, 1850-1900
Salim Al-Gailani

Interrogation of a fly
*Igal Dotan**

Medicine and Biology

The medicalization of male menopause in America
Elizabeth Watkins

Harmful environments: A problem for the bio-statistical theory of health
Elselijn Kingma

Unifying phenomenological and biological descriptions of disease
Havi Carel

Hybrids in Ecology: (Post-)Normal Science and the Interface of Interdisciplinary Practices

Epistemic-moral hybrids: discussing ethical normativity in the context of environmental interdisciplinarities. A case study of the federal nature protection agencies in Germany 1906-2006
*Thomas Potthast**

Eco-anthropology: a fertile hybrid? An epistemological approach to an evolving transdisciplinary field
Patrick Blandin

Experimenting with the archive: performance and emergence in the making of databases of nature
Claire Waterton

Hybrids in ecology: putting things in place
Astrid Schwarz

Continued on the next page

Cultural Inheritance and Niche Construction: Historical and Philosophical Perspectives I

The history and importance of cultural inheritance
*Maria Kronfeldner**

Resolving conceptual tensions in archaeology: applications of niche construction
Lydia Pyne, Julien Riel-Salvatore

The archaeology of cultural inheritance in early *Homo*
Ben Jeffares

Chair: *Manfred Laubichler*

What (If Anything) are the Meaning and Implications of Gene-P? (roundtable)

Paul Griffiths, Lenny Moss, Jonathan Kaplan, Ken Schaffner, Rob Wilson*

Chair: *David Depew*

The Science of Sex and Gender I

Are men and women as different as humans and chimpanzees? Quantifying sex differences in the human genome
Sarah Richardson

Explanatory models in behavioural endocrinology: unifying the mechanisms
*Sylvia Rolloff**

Bias in evolutionary explanations of women's orgasm
Elisabeth Lloyd

Chair: *Sylvia Rolloff**

New Methods for Teaching History and Philosophy of Biology: Museums, Field Stations, and the Internet I (roundtable)

Kristin Johnson (Using museum collections), *Mark Borrello** (Using field stations), *Matt Haber* (Using on-line resources), *John M. Lynch* (Blogging for teachers)

Chair: *Mark Borello**

Evolution of social behaviour

Correlating strategies with neighbours even when the goal is anti-correlation
Ryan Muldoon, Michael Weisberg

Thinking about coalition formation
Yasha Rohwer

Evolution of social behaviour by group selection
Tomi Kokkonen

Beauty, Mate Selection and Evolutionary Psychology: A Critical Review
Yuridtizi Pascacio-Montijo

Human Genetics

When is 'race' a race? The use of the race category in genetics, epidemiology and medicine in recent decades
Snait B. Gissis

DNA Evidence? Genetic anthropology and history
Yulia Egorova

Behavioral genetics and the shared/nonshared environment distinction: How (not) to interpret behavioral genetic research
Kathryn Plaisance

Microbial Ontology

Global microbiology: one more step to a "New Synthesis"?
George Levit

Bacteria and evolution: intercellular communication, cell fusion and natural genetic engineering
James Shapiro

Ontology from the microbe's point of view
John Dupre

Chair: *Carol Cleland*

11:00-12:30 Saturday Session IX Mechanisms and Causation in Ecology and Evolution II

Mechanism range and natural selection
*Matthew Barker**

The new mechanistic philosophy and the mechanism of competition
Viorel Paslaru

Causal productivity, causal relevance and the nature of selection
Stuart Glennan

Chair: *Matthew Barker**; Commentator: *Lindley Darden*

Sports, Freaks, Monsters and Mutants: Toward a History of Mutation II

"Complex recombinations": rethinking the death of de Vries' mutation theory
Luis Campos

Victor Jollos' research on *Paramecium*: pure lines and the concept of *Dauermodification*
Christina Brandt

Commentator: *Hans-Joerg Rheinberger*

Plastic Minds: A developmental perspective on animal behavior

Developing theories of imitation
Colin Allen

The construction of a developmental niche: a means for phenotypic plasticity
*Karola Stotz**

Development and cultural transmission of tool use in New Caledonian crows
Russell Gray

Chair: *Karola Stotz**; Commentator: *Patrick Bateson*

Ideology in Biology

'Skandalon': Haeckel's pictures of embryos in the struggle of world views
Nick Hopwood

Primordial Soup and the spice of life: J.B.S. Haldane between holism and mechanism
Eric Martin

Stalin and fighters against cell theory
Valery N. Soyfer

A sword from the field of battle: The double helix and the secret of life in 1950s Britain
Robert Bud

Cultural Inheritance and Niche Construction: Historical and Philosophical Perspectives II

Moral nativism: a sceptical response
Kim Sterelny

Niche inheritance: its implications for human cultural inheritance
John Odling-Smee

The role of the environment in human cultural inheritance
Kenneth Reisman

Chair: *Manfred Laubichler*

Perspectives on the Biological Sciences in Nazi Germany and Beyond

Population genetics and psychiatry in the 1930s: British scientists and their views of the Munich school of psychiatric genetics
Volker Roelcke

Isotpes and animal models in biological research during National Socialism
Alexander v. Schwerin

Leviathan and the ultracentrifuge: politics, technology and the life sciences in National Socialist Germany
Bernd Gausemeier

Chair: *Carola Sachse*; Chair: *Sheila Weiss**

The Science of Sex and Gender II

More prodigies, more idiots: effects of differences in high-end intellectual aptitude hypotheses on the production of biological knowledge
Carla Fehr

Symmetry failures in studies of hormonal organization of the human brain: a case study of a new tactic for critical science studies
Rebecca M. Young

Chair: *Sylvia Rolloff**; Commentator: *Sarah Richardson*

New Methods for Teaching History and Philosophy of Biology: Museums, Field Stations, and the Internet II

tba (The Virtual Lab), *Mary Sutherland* (The Embryo Project), *Jukka Tienari* (An algebraic model for teaching theoretical biology)

Chair: *Mark Borello**

Unification, Autonomy, and the Future of Biology

What are the prospects for a biological theory of everything?
Marion Blute

Biology and the other sciences; autonomy and cohesion
Diedel Kornet

Cassirer's history of hope
Richard Creath

Implications of current applications of systems biology for the scientific autonomy of biology
Constantinos Mekios

History of Molecular Biology

Not beyond reasonable doubt: a re-examination of Howard Temin's provirus hypothesis
Susie Fisher

Separating molecules, building biology: the evolution of electrophoretic instrumentation and the material epistemology of molecular biology, 1945-1965
Howard Chiang

Sequencing RNA in the 1960s and 1970s: an "RNA world"?
Jerome Pierrel

The visualisation of the invisible in cell biology:the use of models describing cell function as a consequence of the molecular revolution (1970-2000)
Norberto Serpente

Making Microbes Visible to the Philosophy of Biology (roundtable)

*John Dupre, James Shapiro, Katie Kendig, Steve Hughes, Pamela Lyon, Maureen O'Malley**

Chair: *Marc Ereshefsky*

14:00-15:30 Saturday Session X
Explanation by Analogy: Metaphors, Models, or Comparison of Natural Entities?

Is information a metaphor, an allegory or a model?
*Mathias Gutmann**

Genes and information
Michael Bölker, Tareq Syed*

Mirror neurons and intention-understanding
Ben Rathgeber

Molecular machines: a metaphor in the making
Winfried Peters, Suin Roberts, Bernd Buldt

Property of Life: Representations and Reproductions of Life in (Intellectual Property) Law I

An Ongoing Dialogue: Understanding Life Sciences through the Lens of Patent Law in the Early Twentieth Century
Tina Piper

The Laws of Life: The First Patent of an Engineered Life Form
John Emrich

"Killings Kings, Patenting Plants"
Mario Biagioli

Mechanism and its Discontents in 20th-century Biology I: Germany

Julius Schaxel and the emergence of organicism in Germany, 1910-1933
Christian Reifl

Holistic medicine and the rise of sexology in the Weimar Republic
*Jason Byron**

Continued on the next page

"Do you know Rosenberg's address?" Adolf Meyer-Abich and biological holism work toward the Führer
Kevin Amidon

Chair: *Thomas Cunningham*

DST and the Unification of Biology

DST and the definition of the organism
Thomas Pradeu

Developmental Systems Theory and the Neo-Darwinian Theory of Evolution
Anouk Barberousse

DST's concept of expanded inheritance: is it too expanded?
Francesca Merlin

Positional information and parity thesis
*Marie-Claude Lorne**

Chair: *Marie-Claude Lorne**; Commentator: *Philippe Huneman**

Information and Biological Development

Developmental Systems Theory as a claim about inherited information
Nick Shea

Against causal and informational parity
*Ulrich Stegmann**

Biological information as an explanatory metaphor

Arnon Levy

Chair: *Ulrich Stegmann**; Commentator: *Paul Griffiths*

Optimality Modeling and Evolutionary Explanation

What good are optimality models anyway?
*Patrick Forber**

Life history theory, optimality modeling and evolutionary explanation
Stephen Downes

Optimality explanation as anti-reductionism
Angela Potochnik

Optimality: restoring life to the living
Joan Roughgarden

Chair: *Patrick Forber*

The Epistemology of Development, Evolution and Genetics I

How far is history science relevant for philosophy of science? The case of the gene
Jean Gayon

Integration and disintegration in evolutionary biology
*Robert Richardson**

Burian's Paradox and the future of evo-devo
Ron Amundson

Chair: *Hans-Joerg Rheinberger*

Developing Digital Databases and Collaborations

Open forum; Chair: *Jane Maienschein*

Canguilhem in Context

Norm and limit: between Helmuth Plessner and Georges Canguilhem
Thomas Ebke

Living concepts? Georges Canguilhem and the history of biological concepts
Henning Schmidgen

What is a philosophy of individuation? Simondon's theory of the living
Didier Debaise

Michel Foucault and Georges Canguilhem: biopolitics and the attempt at a new biological foundation of the human sciences
Ugo Balzeretti

Representations of Nature in Life Science Pedagogy

Linnaean traditions: school botany and biological recording
Jenny Beckman

Papier-mache flowers, fruits and seeds: the botanical teaching models of Louis Thomas Jerome Auzoux
Margaret Olszewski

Learning through glass: Henry Ward and the Blaschka glass animals in North America
*Ruthanna Dyer**

Dawson teaching sheets: 19th century natural science on cotton
Ingrid Birker, Tania Aldred

Chair: *Ruthanna Dyer**

Reproduction and Reproductive Technology

Reproduction and Cell Cultures: Human Genetics and Prenatal Testing in the Baby-boom Era
Marìa Jesus Santesmases

Founding The New Discipline Reproductive Genetics: The Role Of Model, Theory And Language
Bettina Bock v. Wuelfingen

The Child That is Wanted: Kinship and the Body of Evidence
Karin Lesnik-Oberstein

Debates in Reproductive Technologies: Semen Banks and Artificial Insemination in USA
Alicia Villela

16:00-17:30 Saturday Session XI
New Issues in Levels of Individuality and Units of Selection

How new units of selection may emerge in the course of evolution
Minus Van Baalen

What is a symbiotic superorganism and how do you measure its fitness?
Frederic Bouchard

Evolvability, transitions and the emergence of new individuals
*Philippe Huneman**

Chair: *Philippe Huneman**

Property of Life: Representations and Reproductions of Life in (Intellectual Property) Law II

Representation and invention: animate embodiments
Alain Pottage, Brad Sherman

Genes are patents, patents are genes: the rise and fall of a scientific metaphor in legal analogy
*Hyo Yoon Kang**

Commentator: *Jane Calvert*

Mechanism and its Discontents in 20th-century Biology II: Britain

A reply to naïve mechanicism: J. S. Haldane's shift from vitalism to holism and its effects on his philosophy of biology
Thomas Cunningham

Mechanism without reductionism: colloid chemistry and the mechanist conception of life
Rony Armon

Chair: *Garland Allen*

25 Years on from Marr's Vision: Philosophical Perspectives on the Boundary Between Neurobiology and Cognitive Science

Scientific discovery, understanding, and the modelling of neurocomputational mechanisms
*Matti Sintonen**

Marr's computational theories revisited
Oron Shagrir

Computation, external factors, and cognitive explanations
Amir Horowitz

Marr's computational level and mechanistic explanation: extending the notion of mechanism
Otto Lappi, Anna-Mari Rusanen

More on Information

The informational bee: the integrative role of a causal concept of information
Michael Trestman

Information and DNA: How the unexplanatory metaphor explains
Lindsay Craig

Philosophies of Biology: Naturalistic, Transcendental or Beyond? (Octavian Discussion)

Werner Callebaut, Gertrudis Van de Vijver, Linda Van Speybroeck, Dani De Waele, Lenny Moss, Jonathan Kaplan, Matthew Haber, Andrew Hamilton*

Chair: *David Depew*; Commentators: *Thomas Reydon, Jason Byron, Michel Morange, Filip Kolen, Helena De Preester, Joris Van Poucke*

The Epistemology of Development, Evolution and Genetics II

Regulatory gene networks: historical and epistemological reflections
Manfred Laubichler

Developmental constraints reconsidered in the light of the ZFEL
Robert Brandon

Chair: *Hans-Joerg Rheinberger*; Commentator: *Richard Burian*

Complexity, Systems, Teleology

Evolution in light of Leibniz's principle of the identity of indiscernibles
Jean-Sebastien Bolduc

Teleology and complementarity: Kant, Bohr, biology and atomic physics
Hernan Pringe

Towards an understanding of biological and physical states: examining Robert Rosen's ontology of nature
Slobodan Perovic

Who's afraid of irreducible complexity?
Jason Zinser

Cultural Evolution

Making developmental biology second nature: graduate courses as scaffolding for disciplinary inheritance
Christopher DiTeresi

Modularity, memes, and scaffolding in cultural evolution
William Wimsatt

Balinese water temples revisited: approaching Steven Lansing's Balinese ethnography from the perspective of constructivist evolutionary anthropology
Emily Schultz

Working toward evolutionary reasoning in the social sciences: an argument for cultural evolution entailing cumulative knowledge and technical innovation
Jonathan Van Wieren

History of Classical Genetics

Preventive discourse on pathological heredity: materialization of medical power in the mexican civil law, 1870 to 1930
Fabricio Gonzalez-Soriano

T.H. Morgan's multiple agendas related to regeneration
Mary Sunderland

Opponents can help: Sturtevant, Morgan and the building of the first chromosome maps
Lilian Pereira Martins

Wilhelm Johannsen's concept of the genotype
Nils Roll-Hansen

Species

Taxonomic resolution in ecology: How species concepts produce a plurality of ecological models
Toben Lafrancois

Review of the cohesion concept of species
John Collier

How incommensurability fuels the species problem
Eric Oberheim

Continued on the next page

Sunday July 29

09:00-10:30 Sunday Session XII
Essentialism and Classification I

The unseasonable lateness of Being-What-It-Is, or, the myth of biological essentialism
*John Wilkins**

The ontology of race
Katie Kendig

Thinking populations through Deleuze
Arun Saldanha

Taxonomic freedom: the virtue of dual ambiguity
Matt Haber

Chair: *John Wilkins**

Stasis and Change in Development and Evolution

Evolutionary stasis and developmental stability: Are they related?
*Jonathan Kaplan**

Universal development
James Maclaurin

Two ways that modules enable evolvability
Brett Calcott

Chair: *Jonathan Kaplan**

Metaphysics of Natural Selection, Random Drift, and Mutation: Probability, Causation, and Modality I

The unity of fitness
*Marshall Abrams**

Two requirements for the concept of genetic drift
Matthew Dunn

The case for a frequentist interpretation of fitness
Chris Jenson

Chair: *Marshall Abrams**

Mechanisms, Functions, Organization, and Emergence: New Perspectives on Reductionism I

Marcel Weber, Manfred Laubichler, Sahotra Sarkar, Jason Scott Robert, Colin Allen, Alan Love, Paul Griffiths, Karola Stotz, Bill Bechtel, Bob Richardson, Bill Wimsatt*

Chair: *Karola Stotz**

Philosophies of Science in the 18th Century: Critical Reflections on Methodologies for the Biological Sciences

Kant and the challenges of naturalism
John Zammito

Kant's shifting attitude towards *Naturgeschichte* and Girtanner's synthesis
Marcel Quarfood

Instrumental reasoning in the 18th century
*Joan Steigerwald**

Chair: *Phillip Hunemann*

Pragmatism and Evolutionary Biology

Dewey's Darwinism and the Baldwin effect
David Depew

From the principles of psychology to dynamic systems: the influence of Darwin on James, Dewey, and cognitive neurobiology
Tibor Solymosi

What does a pragmatist genetics look like? Herbert Spencer Jennings and the politics of evolution and heredity
Judy Johns Schloegel

Gospel of Greed: Peirce's misreading of Darwin
*Mark Tschaepe**

Chair: *Mark Tschaepe**

Complexity Management in Biology: Philosophical and Sociological Views I

Systems biology and the limits of human cognition
Alfonso Arroyo Santos

Stems and standards: social mechanisms for managing complexity in immunology
Melinda Fagan

Modularity thinking as a way of managing complexity in developmental biology
*Vivette Garcia**

Chair: *Vivette Garcia**

Rhetorics of Nature

Is the tree of life metaphor really necessary?
Erica Torrens, Ana Barahona

Rhetoric in Stephen Jay Gould's work
Vladimir Cachon

Knowledge and politics in Gaian science
Eileen Crist

What is natural?
Clement Loo

Mathematics in Biology

Mathematical models and biology: a philosophical analysis
Giovanni Boniolo

The Markov Condition and Reliable Model Specification in Population Biology
Bruce Glymour

Probability in Evolutionary Theory
Aidan Lyon

Bayes is the New Black: Agent-Based Modeling and Bayesian Inferences in Biology
Trin Turner, Tom Schenk, Jr.

History of Biomedicine

The erythrocyte as a model, or the virtue of lacking DNA: an account on the material culture of cell aging and apoptosis studies
Maria Strecht Almeida

The making of a pathogen: the early biography of *Helicobacter Pylori*
Joao Nunes

Quantifying excitable tissues in the 1930s
Maxi Stadler

Artificial radioisotopes in biomedicine, 1935-1946: production, experimentation, and gift exchange around the Berkeley Cyclotron
Angela Creager

Foundations For A Genuinely 'Cognitive' Biology

Prolegomena for a cognitive biology
Pamela Lyon, Jon Opie*

Animality: where biological cognition might start
Fred Keijzer

What do nervous systems do?
Daan Franken

Chair: *Carl Craver*

11:00-12:30 Sunday Session XIII

Essentialism and classification II

Species essentialism without attributes: processes, patterns and biological ontologies
Mathias Brochhausen, Ulf Schwarz

Biology without species
Gal Kober

The role of "good species" in the species problem
Yuichi Amitani

Axiomatizing the tree of life: the impact of logic on biological taxonomy in the early 20th century
Charissa Varma

Chair: *John Wilkins**

Microbiology

Plasmids: between autonomous molecules and symbiotic organisms
Mathias Grote

Evolution without species: the case of mosaic bacteriophages
Gregory J. Morgan, W. Brad Pitts

Constructing extreme nature: Thomas Brock's microbial ecology at Yellowstone Natural Park
Jessica Tanenbaum

Metaphysics of Natural Selection, Random Drift, and Mutation: Probability, Causation, and Modality II

Fitness, discreteness and compositionality
Denis Walsh

Time in biology: an analytic critique and a possible world semantics approach to the temporal structure of living being
Luciana Garbayo

Chair: *Marshall Abrams**

Mechanisms, Functions, Organization, and Emergence: New Perspectives on Reductionism II

Marcel Weber, Manfred Laubichler, Sahotra Sarkar, Jason Scott Robert, Colin Allen, Alan Love, Paul Griffiths, Karola Stotz, Bill Bechtel, Bob Richardson, Bill Wimsatt

Chair: *Karola Stotz**

Changing Perceptions, Changing Cultures: Molecular Biology and the Rise of the Biotech Industry

From organic chemistry to molecular biology: practical, institutional and strategic shifts in drug development at Hoffmann-La Roche, 1960–1980
Michael Bürgi

DNA at 40: The impact of biotech on collective memory in molecular biology (1993, 1953)
Pnina Abir-Am

Coping with the 'Hoechst shock': perceptions and cultures of molecular biology in Germany
*Thomas Wieland**

Chair/Commentator: *Helga Satzinger*

Complexity, Robustness, and Explanatory Power in Biological Modeling

Simplicity and generality in biological modeling
Michael Weisberg

Robustness, multiple models, and realism
Jay Odenbaugh

Modeling trade-offs and scientific explanation
John Matthewson

Chair/Commentator: *William Wimsatt*

Complexity Management in Biology: Philosophical and Sociological Views II

What Simon should have said
James Griesemer

Managing complexity via models
Andrea Loettgers

Chair: *Vivette García**

Continued on the next page

Evolutionary Epistemology

Two challenges for evolutionary epistemologies based on selection theory
Davide Vecchi

Reductionism in some naturalized epistemologies, or why philosophy matters
Paola Hernandez Chavez

Kornblith on knowledge: reliability, then or now?
Heather Perez

Ecology

post-classical ecology: on the emerging dynamic perspective from self-organizing complex adaptive systems
Yin Gao, William Herfel

"Invasive" species and the diversity-stability hypothesis
Rachel Bryant

In search of community ecology
Gregory Cooper

Historicity in ecology
Eric Desjardins

Premodern Biology

The primacy of the heart in Aristotle's biology and psychology
Jamie Feldman

The relationships between text and images in microscopy of insects in the 17th century: the example of Swammerdam
Sylvêne Renoud

The emergence of themes of research in the epistolar relation between Lazzaro Spallanzani and Charles Bonnet
Maria Elice Brzezinski Prestes

Spontaneous generations, beginning of life and history of life in Lamarck's theory.
Stéphane Tirard

Special thanks to our Program Co-Chairs!

Don't forget to mail in your ballots by July 15!

Remember to update your membership when you register for the Exeter meeting.

Garland Allen, *President*
Washington University
allen@biodec.wustl.edu

Keith Benson, *Treasurer*
13423 Burma Rd. SW
Vashon Island, WA 98070 USA
treasurer@ishpssb.org

Chris Young, *Secretary*
2009 N Palmer St
Milwaukee, WI 53212 USA
(414) 298-9138
secretary@ishpssb.org

Ex Officio Member of Council:
Pamela Henson, *Archivist*
Institutional History Division
Smithsonian Institution Archives
Washington, DC 20560-0414
(202) 786-2735
hensonp@osia.si.edu

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