

ISHPSSB & ABFHIB 2017 Meeting  
Preliminary Program – June 9th<sup>th</sup> 2017

## SUNDAY JULY 16

13:00-17:00 – **Registration**

13:00-15:00 – **Visiting Butantan Museums and Park**

15:00-16:00 – **Brazilian Music**

17:00-18:00 – **President's welcome**

18:00-19:00 – **Open air cinema: "Science in movement"**

19:00-21:00 – **Welcome to São Paulo cocktail**

## MONDAY JULY 17

08:00-09:00 – **Registration/Secretariat** – LabLic (MINAS)

09:00-10:30 – **Parallel sessions 1**

ORGANIZED SESSION STANDARD TALKS – AG-ZOO

Heredity and Evolution in an Ibero-American Context

Orgs. Marsha Richmond and Ana Barahona

Chair of the session: Ana Barahona

Papers:

**Adriana Novoa** – (001) The biology of masculinity: The evolution of gender in nineteenth century Argentina

**Lilian Al-Chueyr Pereira Martins** & José Franco Monte Sião – (002) The introduction of population genetics studies in Brazil (1943-1960): a bibliometric study

**Marsha Richmond** – (003) Central-American species/North-American knowledge: The cytogenetic research program of Sally Hughes-Schrader and Franz Schrader

ORGANIZED SESSION STANDARD TALKS – CD-A1

The Enduring Relevance of Organicism for Philosophy of Biology

Orgs.: Jan Baedke and Daniel J. Nicholson

Chair of the session: Jan Baedke

Papers:

**Daniel J. Nicholson** – (004) Organicism Philosophy of Biology: Then and now

**Jan Baedke** – (005) Locating the organism in the environment: Old and new challenges

**Daniel Brooks** – (006) Joseph Needham's contributions to the development of the levels concept in Biology (1929-1945)

ORGANIZED SESSION STANDARD TALKS – CD-A2

The Resituation of Scientific Knowledge

Org. and chair of the session: James Griesemer

Papers:

**Carlos Andrés Barragán** – (007) Substantiating genetic and cultural continuity: Partial connections between genomic, archaeological and linguistic datasets

**L. Scott Cole** – (008) Resituating scientific knowledge using commercial platforms

**James Griesemer** – (009) Situating the resituation of knowledge

INDIVIDUAL PAPERS SESSION – CD-A3

History of Medicine

Chair of the session: Michel Morange

Papers:

**Ruy Jose Henriquez Garrido** – (015) Optics and analogy in Fracastoro's definition of "seeds of contagion at a distance"

**Kelly Regina Silva Campos**, Luiz Felipe Reversi, Ana Maria de Andrade Caldeira & João José Caluzi – (016) The sociality network of Albert Calmette's studies about the development process of the bacillus BCG

**Michel Morange** – (017) Bacteriophage in the Pasteurian tradition

INDIVIDUAL PAPERS SESSION – MINAS1

Neurosciences: Philosophical Perspectives

Papers:

Chair of the session: Osvaldo Frota Pessoa Jr.

**Matthew Smithdeal** – (138) Situating the individual: An expanded account of psychological mechanisms

**Osvaldo Frota Pessoa Jr.** – (020) On the coming revolution in Brain Science

INDIVIDUAL PAPERS SESSION – MINAS2

Life and organisms: Philosophical Perspectives

Papers:

Chair of the session: Susie Fisher

**Susie Fisher** – (021) "Life created" – for the love of science?

**Thomas Heams** – (022) Why life cannot be engineered but can be defined

**Flavio D'Abramo** – (023) Epigenetics and the molecularization of the social

10:30-11:30 – **Coffee Break**

11:00-12:30 – **Parallel sessions 2**

ORGANIZED SESSION STANDARD TALKS – AG-ZOO

Heredity and Evolution in an Ibero-American Context

Orgs. Marsha Richmond and Ana Barahona

Chair of the session: Marsha Richmond

Papers:

**Marta Velasco Martín** – (024) Women geneticists, families and *Drosophila* populations

**Ana Barahona** – (025) Women and the workplace: The work of Leonor Buentello at the first Unit of Human Genetics in Mexico

Panel discussion

ORGANIZED SESSION STANDARD TALKS – CD-A1

Teleology and Organization in Biological Systems

Orgs.: Matteo Mossio and Andrea Garbarotto

Chair of the session:

Kepa Ruiz-Mirazo

Papers:

**Matteo Mossio** – (027) What makes biological organization teleological?

**Andrea Garbarotto** – (028) Kant and beyond: natural purposiveness from an organizational perspective

**Cristian Saborido** – (029) Organizational teleology and functional normativity

ORGANIZED SESSION STANDARD TALKS – CD-A2

The Resituation of Scientific Knowledge

Org. and chair of the session: James Griesemer

Papers:

**Jason Oakes** – (030) Versioning as a means to track resituation

**Alok Srivastava** – (031) The work of metabolism of anomalies at sites of scientific communities drives recruitment and re-situation of knowledge from other communities

Panel discussion

#### INDIVIDUAL PAPERS SESSION – CD-A3

Biological Education I

Papers:

Chair of the session: Sarah M. Roe

**Martin Joseph Bremer** – (032) Why science education needs Philosophy

**Sarah M. Roe** – (033) The Citizen Science Movement according to Feyerabend: Taking advice from a madman

**Eduardo Cortez** – (034) Applying technology and history of science to develop an innovative teaching-learning sequence about natural selection and nature of science

#### INDIVIDUAL PAPERS SESSION – MINAS1

Phylogenetics: Philosophical Perspectives

Papers:

Chair of the session: Celso Neto

**Celso Neto** – (035) Species cohesion in the age of discordance

**Yuichi Amitani & Tetsuji Iseda** – (036) What can species theorists learn from Parfit?

**Nina Kranke** – (160) The molecularization of phylogenetics – preconditions and consequences

#### INDIVIDUAL PAPERS SESSION – MINAS2

Systems Biology and Big Data: Philosophical Perspectives

Papers:

Chair of the session: Constantinos Mekios

**David Montminy** – (038) Is biology once again setting a new agenda for philosophy of science?

**Constantinos Mekios** – (040) Can organizing principles continue to transform the research program of systems biology in a productive manner?

#### INDIVIDUAL PAPERS SESSION – MINAS3

Scientific Explorations

Papers:

Chair of the session: Eleonore Zулnara Freire Setz

Denise de Alemar Gaspar, Marcos Almir Polettini, **Eleonore Zулnara Freire Setz** & Suzana Barretto Ribeiro – (042) Fauna in Campinas, São Paulo, in the era of sugarcane and coffee cultivation: From 19th century naturalists to 20th century popular and scientific chronicles

**Alexandre Kannebley de Oliveira** & Julio Cesar Garavello – (043) Systematics, history and biodiversity conservation relationships from the assembly of a freshwater fish species topotypes collection

INDIVIDUAL PAPERS SESSION – AG-BOT

Philosophy of Ecology I

Papers:

Chair of the session: Michael Goldsby

**Michael Goldsby** – (044) Conflicting baselines: A crisis in Ecology

**Georgia Rae Rainer** – (045) Law & Order: Ecology

**Bruno Travassos-de-Britto**, Renata Pardini & Paulo Inácio de Knegt López de Prado – (046) From models to theories: A bottom-up approach to organize propositions into constitutive theories in Ecology

12:30-13:00 – **Lunch Break**

13:00-15:00 – **ISHPSSB Council Meeting** – ROOM4

15:30-17:00 – **Parallel sessions 3**

ORGANIZED SESSIONS DIVERSE FORMAT – AG-ZOO

Mini-workshop

(047) Historical, Philosophical, and Interdisciplinary Writing and Publishing

Org.: ISHPSSB Education Committee

Chair of the session: Isabella Sarto-Jackson

Discussants:

**Gregory Radick**

**Michael Dietrich**

**Staffan Müller-Wille**

ORGANIZED SESSION STANDARD TALKS – CD-A1

## The Multiple Guises of Value in Biological Science

Orgs. and Chair of the session: Adrian Currie

Papers:

**Joyce Havstad** – (049) Taxonomic discovery, epistemic standards, and ecological aims in Ornithology

**Adrian Currie** – (050) Extrinsic values, the paradox of material evidence, and crocodiles

Panel discussion

## ORGANIZED SESSION STANDARD TALKS – CD-A2

Teleology and Organization in Biological Systems

Orgs.: Matteo Mossio and Andrea Garbarotto

Chair of the session: Andrea Garbarotto

Papers:

**Gaëlle Pontarotti** – (051) Connecting biological inheritance with purposiveness: A new insight into evolutionary theory

**Kepa Ruiz-Mirazo** – (052) The teleological debate at the interface between chemistry and biology

**Nei Nunes-Neto** – (053) The organizational approach of ecological functions and ecocentrism

## ORGANIZED SESSION STANDARD TALKS – CD-A3

Models and Theories in Biology

Org. and chair of the session: Pablo Lorenzano

Papers:

**Karina Alleva, José Díez & Lucía Federico** – (054) Models, theory structure and mechanism in Biochemistry: The case of allosterism

**Pablo Lorenzano & Martín Díaz** – (055) Models, laws and theories in population dynamics

**Federico Nahuel Bernabé & Leandro Ariel Giri** – (056) Neither one-sex nor two-sex Models: Rethinking the general conceptualization of sexual differences and differentiation in Biology

## ORGANIZED SESSION DIVERSE FORMAT – MINAS1

Panel

Between Plants and Snakes: 100 Years of Botanical Studies at Instituto Butantan

Org.: Luiza Teixeira-Costa and Erika Hingst-Zaher

Chair of the session: Luiza Teixeira-Costa

Papers:

**Paulo Henrique Nico Monteiro** – (057) Horto Oswaldo Cruz, medicinal plants and health in the XIX Century São Paulo

**Adriano Dias de Oliveira** – (058) Horto Oswaldo Cruz and the birth of botany in São Paulo

**Luiza Teixeira-Costa** – (059) Social and medicinal use of the botanical collections at the Horto Oswaldo Cruz

**Yasmin Vidal Hirao** – (060) Hoehne's collection of orchids

**Erika Hingst-Zaher** – (061) Public participation and the research at the Horto Oswaldo Cruz

#### INDIVIDUAL PAPERS SESSION – MINAS2

Evolution Education

Papers:

Chair of the session: Nelio Bizzo

**Gonzalo Peñaloza** – (062) The relation between science and religion in the circulation of Darwinism in the school biology in Colombia

**Jing Zhu, Mingjun Zhang & Michael Weisberg** – (063) Why does the Chinese public accept evolution?

**Nelio Bizzo** – (285) Understanding evidence of biological evolution in a Darwinian perspective: The power of philosophy

17:00-17:30 – **Coffee break**

17:30-18:00 – Transfer to CDI (Plenary conference)

18:00-19:30 – **Plenary conference**

**Naomi Oreskes** – (067) Can Science Be Viewed as *ex ante* Authoritative in a Post-Factual World?

19:30-21:00 – **Poster session and refreshments**

**Posters on Biological Education**

**Ana Carolina Biscalquini Talamoni** – (068) Mondino de Luzzi, Alfonso Bovero and the birth of a tradition for the Anatomy teaching

Antônio Fernando Gouvêa Silva, Paulo Newton Tonolli & **Fernando Faria Franco** – (070) The historical construction of enzymes concept and its use in the Biology teaching

**Gregory Alves Dionor**, Liziane Martins & Neima Alice Menezes Evangelista – (071) Approach to History and Philosophy of Science in Brazilian Science Textbooks of Middle and High School

**Ítalo Nascimento de Carvalho** – (072) Structuring concepts in biology: contributions from the philosophy of biology to the high school curriculum

**Leticia Paola Alabi**, Tamires Michelle Gallo, Fabio Rodrigues, Charles Morphy Dias Santos, Douglas Galante & Verônica de Carvalho Teixeira – (073) Astrobiology as transdisciplinary tool for biology teaching: Searching for structuring concepts in life sciences

**Luis Felipe Delsin**, Giselle Alves Martins & Fernanda da Rocha Brando – (075) Teleology and pollination: A proposal for a didactic intervention

**Matheus Luciano Duarte Cardoso** & Thaís Cyrino de Mello Forato – (076) Contributions of the History of Biology in the teaching of Photosynthesis: A perspective for classroom

**Nathalia Helena Azevedo** & Daniela Lopes Scarpa – (077) “What are legume root nodules?” An example of history of science use for designing and evaluating inquiry-based-learning activities

**Neima Alice Menezes Evangelista** & Vanessa Carvalho dos Santos – (078) The gene concept in Cellular and Molecular Biology Higher Education textbooks

**Rafael Luccas** & Fernando Santiago dos Santos – (079) Teaching and learning Botany with a democratic and collaborative teaching approach: A report with undergraduate students

**Renata de Paula Orofino** & Daniela Lopes Scarpa – (080) Contributions from logic to research on science education

### **Posters on History of Biology**

**Christine Janczur** – (083) Commented translation from an original source in the history of science: Claude Bernard’s *Introduction à l’Étude de la Médecine Expérimental* (1865)

**Leonardo Augusto Luvison Araújo** – (085) The cleavage between heredity and development in the early XX century: The importance of scientific practices

**Marina Clasen Baumann** – (086) Scientific illustration in early Modern Science and its Impact on the Investigation of the natural world

**Pedrita Fernanda Donda** & Lilian Al-Chueyr Pereira Martins – (087) Louis Agassiz’s conceptions on the origin of species and his criticisms on Charles Darwin’s proposal (1859-1874)

### **Posters on Philosophy of Biology**

**Andrea Soledad Olmos** – (088) The functional language of Neuroethology

**Breno Pascal de Lacerda Brito** – (089) The role of non-epistemic values in accepting ecological theories

**Claudio Ricardo Martins dos Reis & Leonardo Augusto Luvison Araújo** – (090) The Nature of Change in Evolutionary Biology: Extended Evolutionary Synthesis?

**Felipe Rebelo Gomes Lima & Nei Nunes-Neto** – (092) A critique of Norton's anthropocentric approach to sustainability: Linking intrinsic value to an organizational approach to functional ascriptions

**Lívia Maria Santos Assunção, Mark Borrello & Juanma Sánchez Arteaga** – (093) Edward O. Wilson and human social behavior: A comparative review between *On Human Nature* and *The Social Conquest of Earth*

**Lucia Carvalho Neco, Nicolas Chaline & Hilton Ferreira Japyassu** – (094) An integrative and quantitative concept of complexity as a measure of sociality

**Luiz Felipe Reversi, Kelly Regina Silva & João José Caluzi** – (095) An organicist perspective to the Philosophy of Science

**Marcelo Silva de Carvalho Delfino & Breno Pascal Lacerda Brito** – (096) Photomicrography as a method of visual representation in science: A discussion about objectivity in photomicrography from the standpoint of Robert Koch's contribution

**Simon Lohse & Thomas Reydon** – (097) Why ELSI research would benefit from (more) philosophy of science

**Vanessa Carvalho dos Santos & Jonei Cerqueira Barbosa** – (098) What Biology is all about: Expanding the commognitive approach by examining Biology as a discourse

**Victor Hugo Oliveira** – (099) Occupational therapy and alternative treatment in relation to disorders of the psyche

## TUESDAY JULY 18

8:00-09:00 – **Registration/Secretariat** – LabLic (MINAS)

09:00-10:30 – **Parallel sessions 4**

ORGANIZED SESSION STANDARD TALKS – AG-ZOO

Weldon's Legacy Revisited: From an Integrated Historical and Philosophical Perspective

Org. and chair of the session: Yafeng Shan

Papers:

**Charles H. Pence** – (100) Syntheses that weren't: W.F.R. Weldon's abandoned 'synthesis' of Biometry and Mendelism

**Gregory Radick** – (101) Biometry without Positivism: The means and ends of Weldon's mathematized Biology

**Yafeng Shan** – (102) Choice in the Mendelian-Biometrician controversy: Why Weldon was not a Mendelian

ORGANIZED SESSION STANDARD TALKS – CD-A1

From Biological Practice to Scientific Metaphysics: Prospects and Challenges

Org. and chair of the session: Alan C. Love

Papers:

**Janella Baxter** – (103) Changing the degree of fine-grained influence with biological technologies

**Katherine Liu** – (104) Uncovering the complex “real” world through simple models?

**Max Dresow** – (105) Communities and ecosystems: The view from scientific practice

ORGANIZED SESSION STANDARD TALKS – CD-A2

On the Evolutionary Debunking of Reasons and Morality

Org. and chair of the session: Alejandro Rosas

Papers:

**Jorge Oseguera Gamba** – (106) Can metaethical constructivism overcome the evolutionary debunking?

**Maximiliano Martínez** – (107) Evolutionary explanations and the Darwinian dilemma

**Alejandro Rosas** & Juan P. Bermúdez – (108) Shared intentionality co-evolves with a sense of fairness

ORGANIZED SESSION STANDARD TALKS – CD-A3

Contraceptive Controversies: Perspectives on Birth Control

Org.: Kate Grauvogel

Chair of the session: Sophia Efstathiou

Papers:

**Christopher ChoGlueck** – (109) Why ‘how It works’ has mattered: The values of knowing the morning-after pill’s mechanism

**Kate Grauvogel** – (110) Controversial contraceptives: Uncoupling the pill and social progress to assess risk

Panel discussion

ORGANIZED SESSION STANDARD TALKS – MINAS1

The Power of One: The Individual in Neuropsychology, Psychology, and Psychiatry

Org. and chair of the session: Rob Wilson

Papers:

**Carl F. Craver** – (111) Mr. B as science in amber: Some historical perplexities of Neuropsychiatry

**Şerife Tekin** – (112) First person perspectives in Psychiatry

**Natalia Washington** – (113) Diagnostic kinds as human kinds

#### INDIVIDUAL PAPERS SESSION – MINAS2

Visual Representation and Science

Papers:

Chair of the session: Erica Torrens

**Erica Torrens** – (114) Pictures in Biology: Representing human evolution in Mexican visual culture

**Gemma Anderson** and **John Dupré** – (115) Representing biology as process

**Laura Perini** – Beyond depiction: Aesthetics & images in the Life Sciences

#### INDIVIDUAL PAPERS SESSION – AG-BOT

Social, Historical and Philosophical Studies of Ecology

Papers:

Chair of the session: Thomas Michael Lewinsohn

**Thomas Michael Lewinsohn** – (116) The onset of Brazilian ecological science in the 20<sup>th</sup> century

**Diana Bertuol Garcia**, Carla Morsello & Renata Pardini – (117) A conceptual framework for understanding the causes of the science-practice gap in Ecology

**Guilherme Sanches de Oliveira** – (118) Ecological Psychology and the environmentalist promise of “affordances”

10:30-11:00 – **Coffee Break**

11:00-12:30 – **Parallel sessions 5**

#### ORGANIZED SESSION DIVERSE FORMAT – AG-ZOO

Innovative Proposals to Introduce History and Philosophy of Biology in Biology Education

Org.: Maria Elice Brzezinski Prestes and Paulo T. Sano

Chair of the Session: Paulo T. Sano

Papers:

**Thaís Cyrino de Mello Forato** & Maria Elice Brzezinski Prestes – (121) Students' perceptions about relevant elements to prepare teachers to deal with history and nature of science

**Filipe Faria Berçot** & Maria Elice Brzezinski Prestes – (122) Where do they come from? The 18<sup>th</sup> century puzzle of aphids in a virtual historical narrative

Panel discussion

ORGANIZED SESSION STANDARD TALKS – CD-A1

Thinking the Organic in German Idealism: Life, Time, and History

Org. and chair of the session: Juan Felipe Guevara-Aristizabal

Papers:

**Juan Felipe Guevara-Aristizabal** – (123) Epigenesis and the rupture of Kantian time

**Violeta Aréchiga-Córdova** – (124) Schelling: Epigenesis and Philosophy

**Joan Steigerwald** – (125) Schelling's Natural History of the World Soul

ORGANIZED SESSION STANDARD TALKS – CD-A2

Modeling Individuality: Organisms, Stem Cells, and Cancer

Org. and chair of the session: Melinda Bonnie Fagan

Papers:

**Melinda Bonnie Fagan** – (126) Stem cells and lineage models of development

**Anne Siebels Peterson** – (128) Individuality, generality, and change in Metaphysics and Philosophy of Biology

Panel discussion

ORGANIZED SESSION STANDARD TALKS – CD-A3

Science and Ethics on the Application of Biogenetic and Chemical Technologies to Large-scale Agriculture in Argentina and Brazil

Orgs.: Luciana Zaterka, Pablo Rubén Mariconda and Guillermo Folguera

Chair of the session: Pablo Rubén Mariconda

Papers:

**Pablo Rubén Mariconda** – (129) Epistemology and Ethics in large-scale biotechnological applications

**Luciana Zaterka** – (130) Genetically modified organisms: The scientific inadequacy of the principle of substantial equivalence

**Guillermo Folguera** & Christian Francese – (131) Biotechnology, technoscience and theoretical simplification. The case of genetically modified organisms (GMOs)

ORGANIZED SESSION STANDARD TALKS – MINAS1

Population Genetics and Mechanics

Orgs.: Jean Gayon and Maël Montévil

Chair of the session: Matteo Mossio

Papers:

**Jean Gayon** – (132) Invariance and reversibility in theoretical Population Genetics

**Maël Montévil** – (133) What counterpart to the principle of inertia in Population Genetics?

Panel discussion

INDIVIDUAL PAPERS SESSION – MINAS2

Scientific Practices: Philosophical Perspectives I

Papers:

Chair of the session: Bettina Bock von Wülfingen

**Dominic Berry** – (135) The history of DNA synthesis: Ways of knowing and making in biology

**Rick Shang** – (136) Evaluating scientific detection instruments: The case of Positron Emission Tomography

**Bettina Bock von Wülfingen** – (137) Annotating, retrieving and reactivating: the epistemic role of labels on micro-preparations within bioscience recovery systems (using the example of Alzheimer's disease preparations)

INDIVIDUAL PAPERS SESSION – MINAS3

Biology, Philosophy and Anthropology

Papers:

Chair of the session: Elliot Hollingsworth

Pedro Henrique Pereira, **Victor Ximenes Marques** & Amanda Soares de Melo – (140) Towards a naturalist philosophical Anthropology

**Elliot Hollingsworth** – (141) Helmuth Plessner's excentric positionality and schizophrenia

12:30-13:00 – **Lunch Break**

13:00-15:00 – **Early Career Scholar Mentoring Lunch**

15:30-17:00 – **Parallel sessions 6**

ORGANIZED SESSION STANDARD TALKS – AG-ZOO

Dreamers, Visionaries, and Revolutionaries in the Life Sciences

Org. Michael Dietrich

Chair: Oren Harman

Papers:

**Oren Harman** – (146) Perchance to dream: Fostering novelty in the Life Sciences

**Mark Borrello** – (171) David Sloan Wilson: Visionary, idealist, ideologue

**Luis Campos** – (148) Neanderthals in space: George Church's modest steps toward possible futures

ORGANIZED SESSION STANDARD TALKS – CD-A1

Teaching Brazilian Biology: Historical Case Studies for Nature of Science Education

Orgs.: Nathália Helena Azevedo and Thiago Marinho Del Corso

Chair of the session: Nathália Helena Azevedo

Papers:

**Nathália Helena Azevedo & Thiago Marinho Del Corso** – (149) Carlos Chagas (1879 – 1934) and the triple discovery: A teaching-learning sequence with historical inquiry case and nature of science

**Rodrigo Ponce & Ursula Simonetti Lovaglio** – (150) Case study: Johanna Döbereiner and the nitrogen biological fixation

**Adriano Dias Oliveira & Fernanda Pardini Ricci** – (151) Case study: Different aspects of the nature of science present in a historical case study about Vital Brazil

ORGANIZED SESSION DIVERSE FORMAT – CD-A2

Dialogue and informal roundtable

Toward a Theory of Organisms: Two Proposals and Three Aims: Using the Theory to Construct Objectivity, Provide Intelligibility and Frame Observations and Experiments

Org.: Carlos Sonnenschein

Chair: Charbel El-Hani

Papers:

**Ana M. Soto** – (152) Principles for a theory of organisms

**Samuel M. Scheiner** – (153) A general theory of organisms

Dialogue and extended roundtable

ORGANIZED SESSION STANDARD TALKS – CD-A3

Collaboration in Contemporary Bioscience: Sociological and Philosophical Approaches

Org.: Phillip Honenberger

Chair of the session: Sabina Leonelli

Papers:

**Niccolò Tempini** – (154) Collaborative science and the epistemic consequences of project management (or its lack thereof): Insights from an interdisciplinary research collaboration and data infrastructure development project

**Phillip Honenberger** – (156) On the dynamics of collaborations in contemporary Biosciences, with lessons drawn from *Nature*

Panel discussion

INDIVIDUAL PAPERS SESSION – MINAS1

Reductionism: Philosophical Perspectives

Papers:

Chair of the session: Daniel C. Burnston

**Daniel C. Burnston** – (066) Getting over atomism

**Nahuel Pallitto** – (158) Human behaviour, reduction and the lack of lower-level warrants

**Nicolás José Lavagnino**, Marta Bertolaso & Guillermo Folguera – (159) Omics in cancer research: Winds of change or same old story?

INDIVIDUAL PAPERS SESSION – MINAS2

Primate Evolution: Theoretical and Philosophical Perspectives

Papers:

Chair of the session: Oren Bader

**Michael Dale** – (162) The sexual selection of Hominin bipedalism

**Alba Leticia Pérez-Ruiz** – (207) Cognitive complexity in primates: The social mind

**Oren Bader** – (164) 'Being in a group' – The emotional scaffolding of the evolution of collective intentionality

INDIVIDUAL PAPERS SESSION – MINAS3

Gender and Race: Historical and Philosophical Studies

Papers:

Chair of the session: Donald Luke Opitz

**Donald Luke Opitz** – (165) Victoria domesticates Amazonia: Gender and Botany in nineteenth century British surveys of Guiana

**Benjamin Rylie Palmer** – (166) A fruitful field for women: Oral histories of 20<sup>th</sup> century women biochemists

**Leyla Mariane Joaquim** – (167) Race, racism and science: Contemporary perspectives

INDIVIDUAL PAPERS SESSION – AG-BOT

Biological Education II

Papers:

Chair of the session: Agustín Adúriz-Bravo

**Agustín Adúriz-Bravo** & Andrea Revel Chion – (168) On the construction of “biology stories”: The value of historical narratives for biology education

**Ítalo Nascimento de Carvalho** & Dália Melissa Conrado – (169) Modeling socioscientific issues with laws for high school biology teaching

**Frederik Moreira-dos-Santos** – (170) Evolutionary explanation and religious beliefs: Where the conflict really lies

17:00-17:30 – **Coffee Break**

17:30-19:00 – **Parallel sessions 7**

ORGANIZED SESSION DIVERSE FORMAT – AG-ZOO

Dreamers, Visionaries, and Revolutionaries in the Life Sciences

Org. Michael Dietrich

Chair: Oren Harman

Panel discussion:

**Oren Harman**

**Mark Borrello**

**Luis Campos**

ORGANIZED SESSION STANDARD TALKS – CD-A1

Toward a Theory of Organisms: Two Proposals and Three Aims: Using the Theory to Construct Objectivity, Provide Intelligibility and Frame Observations and Experiments

Orgs.: Ana M. Soto and Matteo Mossio

Chair: Samuel M. Scheiner

Papers:

**Maël Montévil** – (173) Modeling mammary organogenesis from biological first principles

**Carlos Sonnenschein** – (174) Carcinogenesis explained within the context of a theory of organisms

**Samuel M. Scheiner** – (175) A theory of ecoimmunology and its relationship to a general theory of organisms

INDIVIDUAL PAPERS SESSION – CD-A2

Cultural Evolution

Chair of the session: Lorenzo Baravalle

Papers:

**Lorenzo Baravalle** – (176) Invariance and unification in the theory of cultural evolution

**Carlos Gray Santana** – (177) Cultural evolution: Is language a special case?

INDIVIDUAL PAPERS SESSION – CD-A3

General Epistemology and Biology I

Chair of the session: Octavio Valadez-Blanco

Papers:

**Daniel C. Baidardi** – (178) The concept of semantic fitness inside a semiotic account of natural kind terms

**Octavio Valadez-Blanco** – (234) Cancer in the civilizing process: An epistemological and educational approach to historical and socio-environmental roots

INDIVIDUAL PAPERS SESSION – MINAS1

Identity and Individuality

Papers:

Chair of the session: Anne Sophie Meincke

**Denise Regina Percequillo Hossom** – (181) From personhood to neighborhood: Biotic communities and personal identity

**Anne Sophie Meincke** – (182) Processual animalism: Towards a scientifically informed account of biological identity through time

#### INDIVIDUAL PAPERS SESSION – MINAS2

Scientific Practices: Philosophical Perspectives II

Papers:

Chair of the session: Maria Strecht Almeida

**Robert Meunier** – (183) Perspective and practice: A comparative view on Walther Vogt's and Alfred Sturtevant's approaches to development

**Luciana Sarmiento Garbayo** – (184) Coordinating measurement and world in Medicine: A model-based approach to the introduction of the metric system standardization in the XIX<sup>th</sup> and XX<sup>th</sup> centuries

**Maria Strecht Almeida** – (185) Beyond multiplicity: Exploring narratives around the life span of the mammalian erythrocyte

#### INDIVIDUAL PAPERS SESSION – MINAS3

Philosophy of Evolution I

Papers:

Chair of the session: Makmiller Pedroso

**Brandon Allen Conley** – (186) Disentangling and integrating Mayr and Tinbergen

**Mingjun Zhang** – (187) Is methodological adaptationism really so dangerous?

**Makmiller Pedroso** – (188) Coping with stress: How microbes respond to bottleneck events

#### INDIVIDUAL PAPERS SESSION – AG-BOT

Race and Ethnicity: Historical Perspectives

Chair of the session: Michael Osborne

Papers:

**Anita Guerrini** – (189) Joseph Banks, John Hunter, and the skull trade

**Joe Lunn** – (190) Martial Race Theory in Africa: Herbert Spencer's institutional influence on European colonial armies during the First World War

### WEDNESDAY JULY 19

8:30-09:00 – **Registration** – LabLic (MINAS)

09:00-10:30 – **Parallel sessions 8**

ORGANIZED SESSION STANDARD TALKS – AG-ZOO

Conceptual and Political Challenges in Postgenomics: Organisms, Niches, and Plasticity

Org.: Maurizio Meloni

Chair of the session: Maurizio Meloni

Papers:

**Eva Jablonka** – (191) The challenges of the Extended Evolution Synthesis (EES) research framework

**Jan Baedke** – (192) No return of the organism? Postgenomic trends in biological theory and society

**Tatjana Buklijas** – (193) Uses of epigenetics

ORGANIZED SESSION STANDARD TALKS – CD-A1

Philosophy of Neuroscience: Broader Implications for Philosophy of Science

Org.: Marshall Abrams

Chair of the session: Carl Craver

Papers:

**Marshall Abrams** – (194) Evolutionarily distributed prediction error minimization: R-strategies and selection for misperception

**Lena Kästner & Henrik Walter** – (195) Predictive processing: A theory of everything?

**Matteo Colombo** – (196) The free-energy principle as a first principle of neuroscience?

ORGANIZED SESSION DIVERSE FORMAT – CD-A2

Type of session: Graduate student workshop

(197) Decoding science papers (tools for non-scientists)

Org. and chair of the session: Jessica A. Bolker

Discussants:

**Ana M. Soto**

**Laura Perini**

**Dan Burnston**

ORGANIZED SESSION STANDARD TALKS – CD-A3

Multidisciplinary Perspectives on Evolutionary Biology, Religion and Society

Org.: James Riley

Chair of the session: Fern Elsdon-Baker

Papers:

**Fern Elsdon-Baker** – (198) Creating creationists: Conceptual and methodological issues in social studies of the perceived relationship between evolutionary science and religious belief

**Carissa Sharp**, Carola Leicht, Karisha George & Fern Elsdon-Baker – (199) The projection of belief in the conflict between science and religion

**Stephen Jones**, Rebecca Catto & Tom Kaden – (200) Doubt, uncertainty and salience in public perceptions of biological evolution: Results from a qualitative study of the UK and Canada

#### INDIVIDUAL PAPERS SESSION – MINAS1

Social Studies of Genetics

Papers:

Chair of the session: Antonello La Vergata

**Antonello La Vergata** – (201) From biology to utopia: Charles Richet's mankind in the future

**Evan Arnet** – (202) Our mutational load and the politics of the human breeding population

**Tito Brige Carvalho** – (203) Modeling nature, modeling society: *Drosophila* Genetics in post World War Two Brazil

#### INDIVIDUAL PAPERS SESSION – MINAS2

Philosophy of Ecology II

Papers:

Chair of the session: Victor Lefèvre

**Victor Lefèvre** – (204) Explaining the dynamics of ecosystems: A plea for organicism

**Leila C. Cruz** & John Collier – (205) Hierarchy Theory as epistemological framework in conservation biology research

**Guilherme Sanches de Oliveira** – (206) Go big AND go home? The Biome problem and its metaphysical and epistemological roots

#### INDIVIDUAL PAPERS SESSION – MINAS3

Modeling and Mechanisms: Historical and Philosophical Perspectives

Papers:

Chair of the session: Jens Harbecke

**Jens Harbecke** – (210) Two challenges for a Boolean approach to constitutive inference

**Luana Poliseli** & Jeferson Gabriel da Encarnação Coutinho – (211) Explaining ecological phenomena by means of mechanistic models: Is it possible?

**Tobias Cheung** – (212) Processual orders of organized living systems: The agent models of Cuvier, Hufeland and Cabanis

10:30-11:00 – **Coffee Break**

11:00-12:30 – **Parallel sessions 9**

ORGANIZED SESSION DIVERSE FORMAT – AG-ZOO

Panel with four speakers

(213) Reflections on the Past 50 Years of the History of Biology

Org. and chair of the session: Michael Dietrich

Discussants:

**Garland Allen**

**Ana Barahona**

**Karen Rader**

**Marsha Richmond**

ORGANIZED SESSION STANDARD TALKS – CD-A1

Conceptual and Political Challenges in Postgenomics: Organisms, Niches, and Plasticity

Org.: Maurizio Meloni

Chair of the session: Tatjana Buklijas

Papers:

**Maurizio Meloni** – (214) The politics of nature-nurture: What it was, how it is changing in postgenomic times

**Stephen Engelmann** – (215) From the evolution of cooperation to the political physiology laboratory: The adventures of biopolitical science

**Benjamin Gregg** – (216) Epigenetics as a political theory of genetically influenced social inequalities

ORGANIZED SESSION STANDARD TALKS – CD-A2

Philosophy of Neuroscience: Broader Implications for Philosophy of Science

Org.: Marshall Abrams

Chair of the session: Marshall Abrams

Papers:

The History of Neuroimaging Laboratory (WUSTL): **Carl F. Craver**, Rick Shang, Dave Gruskin, Ronny Bass, Alex DeChristofino, Louis Goicouria, Douglas Knox, Stephen Pentecost, Joseph McCaffrey – (217) The invention of functional neuroimaging: A window on technique-drive scientific change

**Nina Atanasova** – (218) Virtual Morris water maze: The independent life of an experimental system

**Philipp Haueis** – (219) Mesoscale concepts and cortical function

ORGANIZED SESSION STANDARD TALKS – CD-A3

Biodiversity Patterns and their Ecological and Evolutionary Origin

Org. and chair of the session: Davide Vecchi

Papers:

**Silvia Di Marco** – (220) Eco-evolutionary feedback theory: Bridging the gap between ecological and evolutionary processes

**Elena Casetta & Jorge Marques da Silva** – (221) Are species the main units of biodiversity? A lesson from multispecies biofilms

**Davide Vecchi** – (223) The instability of the homogeneous and the stability of the heterogeneous as causes of biodiversity

ORGANIZED SESSION STANDARD TALKS – MINAS1

Multidisciplinary Perspectives on Evolutionary Biology, Religion and Society

Org.: James Riley

Chair of the session: Bernard Lightman

Papers:

**Bernard Lightman** – (224) Oliver Lodge, evolution, and religion

**James Riley** – (225) Popes and evolution in the press: A media content analysis of UK newspapers

**Glen Moran** – (226) British Muslim perceptions of biological evolution

ORGANIZED SESSION STANDARD TALKS – MINAS2

The Cell Theory Reconsidered: From Cell to Organism

Organizer and chair of the session: Sherrie L. Lyons

Papers:

**Maurizio Esposito** – (227) Within and beyond the cell: William Emerson Ritter between cytology and politics

**Sherrie L. Lyons** – (228) “Something is missing”: Daniel Mazia and the concept of the cell body

**Gabriel Vallejos** – (229) Cell biology and the choice of a fundamental unit of analysis

INDIVIDUAL PAPERS SESSION – MINAS3

Gender and Sexual Orientation: Philosophical Perspectives

Papers:

Chair of the session: Ingo Brigandt

**Ingo Brigandt & Esther Rosario** – (230) Three concepts of gender for different social aims

**Fabrizio Mc Manus** – (231) Queering explanations of human sexual diversity

**Jaroslava Varella Valentova & Marco Antonio Correa Varella** – (232) Adaptiveness of the sexual orientation spectrum: Resolving the seeming evolutionary puzzle of homosexuality

INDIVIDUAL PAPERS SESSION – AG-BOT

Philosophy of Evolution II

Papers:

Chair of the session: Giorgio Airoidi

**Giorgio Airoidi** – (235) A proposal of Design Space to classify and explain evolutionary changes

**Alejandro Fábregas-Tejeda** – (236) The emerging structure of the Extended Evolutionary Synthesis: Epistemic turmoil and alternative interpretations

**Wellington Bittencourt-dos-Santos** – (237) Conceptual networks analysis of the integration between internalist and externalist views in Evo-devo

12:30-13:00 – **Lunch Break**

13:00-15:00 – **Graduate Student General Meeting/Membership Diversity Meeting** – ROOM4

15:30-17:00 – **Parallel sessions 10**

ORGANIZED SESSION DIVERSE FORMAT – CD-A1

Panel

Organisms, Membranes and Boundaries: A Process Perspective

Org. and chair of the session: John Dupré

Papers:

**Daniel Nicholson** – (238) Mechanisms and the fluidity of life

**Stephan Guttinger** – (239) Vagueness and the processual nature of membranes

**Anne Sophie Meincke** – (240) On the metaphysics of living boundaries

## ORGANIZED SESSION DIVERSE FORMAT – AG-ZOO

Panel

Agriculture and the Biological Sciences: Heredity, Productivity, Organisms, and the Farmer

Orgs.: Gregory Radick, Berris Charnley and Dominic Berry

Chair of session: Gregory Radick

Papers:

**Barbara Kimmelman** – (241) Making Mendelians: Agricultural breeding programs and the early careers of Edward Murray East and Rollins Adams Emerson

**Garland Allen** – (242) Genetics and the penetration of capital into United States agriculture, 1890-1940: A Marxist analysis

**Tiago Saraiva** – (243) California cloning: Oranges in circulation and the writing of transnational history

**Berris Charnley** – (244) “Dedicated to all Miss Ormerod’s correspondents in economic entomology”: The Injurious Insects Movement and the social purpose of science, 1870-1901

## ORGANIZED SESSION STANDARD TALKS – CD-A2

Rethinking the Explanatory Role of Neuroscience in Psychopathology Research

Org.: Isabella Sarto-Jackson

Chair of the session: Nina Atanasova

Papers:

**Isabella Sarto-Jackson** – (245) Revisiting conceptual frameworks of psychopathologies: The ‘drug-centered’ versus the ‘disease-centered’ model

**Paola Hernández Chávez** – (246) The logic of dysfunctions in Cognitive Neuroscience: Five methodological principles

**Nina Atanasova** – (247) ADHD across cultures: A case study in the biopsychosocial model of mental illness

## INDIVIDUAL PAPERS SESSION – CD-A3

Experiments and Models: Philosophical Perspectives

Papers:

Chair of the session: Lena Kästner

**Lena Kästner** – (248) Experiments in a 2 x 2 table

**Jessica A. Bolker** – (249) Animal models in translational research: Rosetta Stone or stumbling block?

**Sophia Efstathiou** – (250) Personalising RCTs: What is the right target?

INDIVIDUAL PAPERS SESSION – MINAS1

Continental Philosophical Perspectives on Biology and Medicine

Papers:

Chair of the session: Sandra Caponi

**Sandra Caponi** – (251) Psychiatry and the construction of subjectivity in modern society

**Olivier Perru** – (252) Canguilhem: A philosophy of life and a philosophical history of life sciences

INDIVIDUAL PAPERS SESSION – MINAS2

Function and teleology

Papers:

Chair of the session: Amanda Thorell

**Amanda Thorell** – (256) Physiological function, health and medical theory

**Marcela D'Ambrosio**, Nelio Bizzo, Marco Solinas & Fernando Santiago dos Santos – (258) The influence of Teleology on the comprehension of evolution and its consequences to education: An analysis from Aristotle to Mayr's teleological categories

INDIVIDUAL PAPERS SESSION – MINAS3

Philosophy of Evolution III

Papers:

Chair of the session: Gustavo Caponi

**Gustavo Caponi** – (259) The physiological and ecological correlate of the phylogenetic exemplar

**Matheus Henrique da Mota Ferreira** – (261) There in evolution and back again: Evolutionary dialectics of ontogeny and phylogeny through Developmental Psychology and Biology of Cognition

INDIVIDUAL PAPERS SESSION – AG-BOT

History of Evolution I

Papers:

Chair of the session: Gonzalo Peñaloza

**Jairo Robles-Piñeros & Gonzalo Peñaloza** – (262) The reception of Darwinism in Colombia in the late 19<sup>th</sup> century

**Douglas Rogério Anfra** – (263) Evolution theory and the German social democracy

**Luis Felipe Eguiarte Souza** – (264) Haldane between scientific facts and a hard place: The Lysenko affair and his conviction to the public understanding of science

17:00-17:30 – **Coffee break**

17:30-18:00 – Transfer to CDI (Plenary conference)

18:00-19:30 – **Plenary conference**

**Kevin N. Laland** – (265) What use is an extended evolutionary synthesis?

## THURSDAY JULY 20

8:30-09:00 – **Registration** – LabLic (MINAS)

09:00-10:30 – **Parallel sessions 11**

ORGANIZED SESSION DIVERSE FORMAT – AG-ZOO

Multiple speakers session

Philosophical Issues in Astrobiology

Orgs. Kelly C. Smith and Carlos Mariscal

Chair of the session: Kelly C. Smith

Papers:

**Erik Persson** – (266) Some philosophical thoughts about planetary protection

**Leonore Fleming** – (267) To serve Man: Eating meat, eating people, and eating aliens

**Carlos Mariscal** – (268) When astrobiologists write humanities & when humanists write astrobiology

**Kelly C. Smith** – (269) Pinning down "Life"

ORGANIZED SESSION STANDARD TALKS – CD-A1

Generic and Genetic Perspectives on Evolvability

Org.: Alan C. Love

Chair of the session: Thomas A. Stewart

Papers:

**Thomas A. Stewart** – (270) RNA sequencing as a predictive tool for analyzing evolvability

**Alan C. Love** – (272) Temporal scale and extrinsic contributions to evolvability

ORGANIZED SESSION DIVERSE FORMAT – CD-A2

How is the Human Possible? The Hybrid Hominin, the Hybrid Mind, and Unique Relation of Embodiment to Sociality

Type of session: Roundtable

Orgs.: Lenny Moss and Victor Ximenes Marques

Chair of the session: Victor Ximenes Marques

**Lenny Moss** – (273) The hybrid Hominin and its evolved hybrid mind: Groundwork for a renewed Philosophical Anthropology?

Discussants:

**Victor Ximenes Marques** (274)

**Elliot Hollingsworth** (275)

**Phillip Honenberger** (276)

ORGANIZED SESSION STANDARD TALKS – CD-A3

The History and Philosophy of Taxonomy as an Information Science

Orgs.: Joeri Witteveen and Staffan Müller-Wille

Chair of the session: Staffan Müller-Wille

Papers:

**Bettina Dietz** – (277) Co-authoring taxonomy in eighteenth-century botany

**Joeri Witteveen** – (278) Anchoring taxonomic names in a deluge of data

**Staffan Müller-Wille** – (279) “Good and bad species” – Anton Kerner von Marilaun, Charles Darwin, and Gregor Mendel on the ranking of species

ORGANIZED SESSION STANDARD TALKS – MINAS1

Ethnobiology: Historical, Philosophical, and Sociological Issues

Orgs.: David Ludwig and Charbel El-Hani

Chair of the session: David Ludwig

Papers:

**David Ludwig** – (280) Revamping the metaphysics of ethnobiological classification

**Natalia Hanazaki** – (281) Contributions and pitfalls of current Ethnobiology

**Fabio Pedro S. F. Bandeira** – (282) Integrating communities values of biodiversity and traditional knowledge with scientific knowledge to environmental management: Epistemological limits and challenges

ORGANIZED SESSION STANDARD TALKS – MINAS2

Global Perspectives on Human Genetics: Past and Present

Orgs.: Edna Suárez-Díaz, Rosanna Dent and Vivette García-Deister

Chair of the session: Vivette García-Deister

Papers:

**Soraya De Chadarevian** – (286) Human chromosomes in the atomic age

**Rosanna Dent** – (287) “Men of exuberant health”: Indigenous subjects and the gendered study of human microevolution in midcentury Brazil

**Edna Suárez-Díaz** – (288) Not-so-distant neighbors: Blood diseases across the US-Mexico border in the 1960s

INDIVIDUAL PAPERS SESSION – AG-BOT

Philosophy of Evolution IV

Papers:

Chair of the session: Ciprian Jeler

**Ciprian Jeler** – (289) Group selection and how not to define a group’s fitness

**François Papale** – (290) The distinction between populations and individuals in the context of Darwinian explanations: A matter of integration

**Tamar Schneider** – (120) Ecological Interactions within the Holobiont: On the Holobiont’s interactions of its microorganisms

10:30-11:00 – **Coffee Break**

11:00-12:30 – **Parallel sessions 12**

ORGANIZED SESSION DIVERSE FORMAT – AG-ZOO

Roundtable

Manipulation and Causation in Biology: Genetics, Evolution and Experimental Intervention

Orgs.: Maurizio Esposito, Davide Vecchi, Gabriel Vallejos and Lorenzo Baravalle

Chair of session: Maurizio Esposito

Papers:

**Maurizio Esposito** – (291) Handling life: Intervention and causation in Biology

**Davide Vecchi** – (292) Prokaryotic transcription as a test case for manipulationist accounts of developmental causation

**Gabriel Vallejos** – (293) Extrapolating reliable knowledge through different experimental systems

**Lorenzo Baravalle** – (294) Is genetic drift a force of evolution?

#### ORGANIZED SESSION STANDARD TALKS – CD-A1

Doing and Undoing Race

Org.: Ageliki Lefkaditou

Chair of the session: Dominic Berry

Papers:

**Tracy Teslow** – (295) Two takes on race: Exhibitions in mid-20<sup>th</sup> century United States museums

**Abigail Nieves Delgado** – (296) Ways of seeing faces: Race as visible difference in facial reconstruction

**Ageliki Lefkaditou** – (297) Blood, bone, and DNA: Undoing race at the museum

#### ORGANIZED SESSION STANDARD TALKS – CD-A2

The History and Philosophy of Taxonomy as an Information Science

Orgs.: Joeri Witteveen and Staffan Müller-Wille

Chair of the session: Joeri Witteveen

Papers:

**Gordon McOuat** – (298) The threat of sub-species: The intrusion of a taxonomic category and what it might say about meanings in taxonomic practice

**Catherine Kendig** – (299) Individuation, identity, and sortals in biological taxonomy

**Thomas Reydon** – (300) Taxa and systems as holders of information about organisms

#### ORGANIZED SESSION STANDARD TALKS – CD-A3

Ethnobiology: Historical, Philosophical, and Sociological Issues

Orgs.: David Ludwig and Charbel El-Hani

Chair of the session: David Ludwig

Papers:

**Charbel El-Hani** – (301) Ethnobiological and ethnoecological research as key contributors to culturally responsive science education: Epistemological grounds and educational studies

**Diego F. Valderrama-Pérez** – (302) Integrating different accounts for interpreting traditional communities' knowledge in the science classroom: Contributions for dialogue, increase of students' self-esteem and sense of community belonging

Panel discussion on the relevance of ethnobiology for ISHPSSB

#### ORGANIZED SESSION STANDARD TALKS – MINAS1

Nuclear Environments: Geography and Locality in Atomic Age Ecology and Environmental Research

Org. and chair of the session: Judy Johns Schloegel

Papers:

**Joshua McGuffie** – (303) Hidden atomic loci: Cooperation in radioecology at the UCLA Atomic Energy Project and the University of Washington Applied Fisheries Laboratory in the 1940s and 1950s

**Alistair Sponsel** – (304) The symbiosis between studies of nuclear weapons and studies of coral reefs, 1946-1977

**Toshihiro Higuchi** – (305) Cold War, hot spots: Global fallout, regional variations, and the question of scale in the U.S. Worldwide Radiostrontium Sampling Program

#### ORGANIZED SESSION STANDARD TALKS – MINAS2

Global Perspectives on Human Genetics: Past and Present

Orgs.: Edna Suárez-Díaz, Rosanna Dent and Vivette García-Deister

Chair of the session: Rosanna Dent

Papers:

**Elise Burton** – (306) The politics of scientific collaboration and the International Biological Program in the Middle East

**Vivette García-Deister** & Lindsay Smith – (307) "Los migrantes desaparecidos" as a population of cognition: Crisis, unknowability, and the making of the missing

**Vitor Richter** – (308) Accessing prisoners' bodies: Ethical and administrative challenges in making Brazil's national DNA database

#### INDIVIDUAL PAPERS SESSION – MINAS3

Medicine and Health Sciences: Philosophical Perspectives

Papers:

Chair of the session: Megan Delehanty

**Sara Kolmes** – (309) They tried to make me go to rehab

**Shane N. Glackin** – (310) Supervenient disease: The biological and the social in Medicine

**Megan Delehanty** – (311) Illness or identity?

INDIVIDUAL PAPERS SESSION – AG-BOT

Philosophy of Evolution V

Papers:

Chair of the session: Ariel Jonathan Roffé

**Marshall Abrams** – (312) Imprecise probability in evolution and mechanism

**Ariel Jonathan Roffé** & Santiago Ginnobili – (314) Optimality models and the propensity interpretation of fitness

12:30-13:00 – **Lunch Break**

13:00-15:00 – **ISHPSSB Council Meeting** – ROOM4

15:30-17:00 – **Parallel sessions 13**

ORGANIZED SESSION DIVERSE FORMAT – AG-ZOO

Roundtable

History, Philosophy and Sociology of Ethnobiology: A Latin American Perspective

Orgs.: Francisco Vergara-Silva, Radamés Villagómez-Reséndiz and Tania González-Rivadeneira

Chair of the session: Francisco Vergara-Silva

Papers:

**Radamés Villagómez-Reséndiz** – (315) Mapping styles of ethnobiological thinking in Latin America: Two kinds of integration between biology and anthropology

**Tania González-Rivadeneira** & Arturo Argueta-Villamar – (316) The meaning and use of 'biocultural' in Latin American ethnobiology

**Alfredo Sáynes-Vásquez** – (317) Centers, peripheries, and the historiography of ethnobiology: Eugene Hunn's periodization as a case study

Panel discussion

ORGANIZED SESSION STANDARD TALKS – CD-A1

Nuclear Environments: Geography and Locality in Atomic Age Ecology and Environmental Research

Org.: Judy Johns Schloegel

Chair of the session: Toshihiro Higuchi

Papers:

**E. Jerry Jessee** – (318) The nuclear sacrifice zone: Fallout, science information, and the American West

**Judy Johns Schloegel** – (319) A classical AEC boundary dispute: Thermal studies and the Great Lakes Research Program at Argonne National Laboratory in the 1970s

Final panel discussion

ORGANIZED SESSION DIVERSE FORMAT – CD-A2

Multiple speakers session (four talks and one brief commentary)

Challenges and Opportunities of Data Integration

Org.: Sabina Leonelli

Chair of the session: James R Griesemer

Papers:

**Sabina Leonelli** – (320) Studying plant traits across cultures: Data integration strategies in plant phenomics

**David J. Colaço** – (321) The interaction of technique and data: Insights from neural microscopy

**Stefano Canali** – (322) Integrating data in Molecular Epidemiology: The case of exposome research

**Niccolò Tempini** – (323) Where health and environment meet: Geolocation as invariance mechanism for integrating diverse data sources

INDIVIDUAL PAPERS SESSION – CD-A3

Philosophy of Evolution VI

Chair of the session: Roger Sansom

Papers:

**Rick Morris** – (324) Stranger in a strange land: A forecasting account of evolutionary mismatch

**Roger Sansom** – (326) Why Laplaceanism is no threat to evolutionary theory

INDIVIDUAL PAPERS SESSION – MINAS1

Cell and Molecular Biology: Philosophical Issues

Papers:

Chair of the session: Stephan Guttinger

**Ravi Gomatam** – (328) The Central Dogma, Quantum Theory and objective semantic information

**Stephan Guttinger** – (012) When size matters: Lithium and what it means to be part of a cell

#### INDIVIDUAL PAPERS SESSION – MINAS2

Teleology, Autonomy and Agency

Papers:

Chair of the session: Bernard Feltz

**Bernard Feltz** – (330) From self-organization to autonomy

**Sérgio Izidoro de Souza** – (331) Reproduction and auto-production: Kant's idea of organism

**Daniel Sander Hoffmann** – (332) Non-mental agency and life

#### INDIVIDUAL PAPERS SESSION – MINAS3

History of Biology I

Papers:

Chair of the session: Olivier Perru

**Marion Constance Thomas** – (333) Biological and social new orders: Charles Robin (1821-1885) and Comteanism in the Third Republic

**Johannes Mattes** – (334) Travelling olms: Local and global perspectives on the research on *Proteus anguinus* (1700-1930)

**Olivier Perru** – (335) The Brothers of the Christian Schools and the botanical research at the beginning of the 20th century: Some examples of their works

#### INDIVIDUAL PAPERS SESSION – AG-BOT

Evolutionary Psychology and Ethics

Papers:

Chair of the session: Douglas Allchin

**Douglas Allchin** – (013) The naturalizing error

**Jonatan Garcia-Campos** & Saul Sarabia-Lopez – (336) What is a context in the cognitive psychology of reasoning?

**Marco Antonio Correa Varella** – (337) The multiple embedded functions model: A conciliatory approach to functional/adaptive understanding based on multi-layered spatio-temporal structure

17:00-17:30 – **Coffee break**

17:30-18:00 – Transfer to CDI (Awards ceremony)

18:00-19:30 – **Awards ceremony and ISHPSSB general meeting**

19:30-20:00 – Transfer to Paineiras Club (Conference dinner)

20:00-23:00 – **Conference dinner**

## FRIDAY JULY 21

8:30-09:00 – **Registration** – LabLic (MINAS)

09:00-10:30 – **Parallel sessions 14**

ORGANIZED SESSION DIVERSE FORMAT – AG-ZOO

Author Meets Critics

The Eugenic Mind Project

Organizer and chair of the session: Rob Wilson

Discussants

**Katie Kendig** (338)

**Alan Love** (339)

**Judy Johns Schloegel** (340)

Respondent

**Rob Wilson**

ORGANIZED SESSION DIVERSE FORMAT – CD-A1

Four-papers session – Talks and discussion (two interrelated sessions)

Organisms and Us: Part I: Conceptual, Institutional, and Social Forces Shaping Organism Choice and Use

Org. and chair of the session: Rachel A. Ankeny

Papers:

**Lijing Jiang** – (341) From Michurin fish to transgenic carp: Material legacies of socialist science in Chinese biotech

**Dook Shepherd** – (342) Of windows and worlds: Foundational concepts and their roles in the study of honeybee (A.M.) cognition

**Michael Dietrich** – (343) Why study sex by the sea? Marine organisms and the problem of fertilization and cell cleavage

**Mark Tsun On Wong** – (344) Mapping institutional networks in Human and Animal Genomics: A bibliometric and ‘Big Data’ study, 1980–2015

ORGANIZED SESSION STANDARD TALKS – CD-A2

Species in the Age of Discordance

Org. and chair of the session: Matt Haber

Papers:

**Jerzy Brzozowski** – (345) An anti-realist theory of reference for species names

**Aleta Quinn** – (346) Model reductions and competing paradigms in phylogenetic inference

**Dan Molter** – (347) Individual essence and species form: a lesson from polymorphic rust fungi

ORGANIZED SESSION STANDARD TALKS – CD-A3

Methodology in Non-primate Cognition

Org.: Shereen Chang

Chair of the session: Joyce Havstad

Papers:

**Shereen Chang** – (348) Reasoning by analogy from the cognition of humans to parrots

**Sidney Diamante** – (349) The octopus and Cognitive Science

Panel discussion

INDIVIDUAL PAPERS SESSION – MINAS1

History of Biology II

Papers:

Chair of the session: João Felipe Ginefra Toni

**Gustavo Barreto Vilhena de Paiva** – (351) Henry of Ghent and the two-headed monster: A casuistry of the extremes of life

**João Felipe Ginefra Toni** & Ruth Richter – (352) Evolving morphology: 200 years of Goethe's *Zur Morphologie*

**Pablo Lorenzano** – (353) A structuralist analysis of Mendel's two hybridist theories and of their intertheoretical relationships

INDIVIDUAL PAPERS SESSION – MINAS2

General Epistemology and Biology II

Papers:

Chair of the session: Gustavo Caponi

**Yoshinari Yoshida** – (354) Characterizing and evaluating a rationalist approach to biology

**Rafael Ventura** – (355) The logic of simulation

**Paulo Jeferson Pilar Araújo** – (356) The Biolinguistic enterprise: A case in epistemological anarchism?

#### INDIVIDUAL PAPERS SESSION – MINAS3

Genetic Drift: Theoretical and Philosophical Perspectives

Papers:

Chair of the session: Cristian Saborido

**Pierrick Bourrat** – (357) Interpreting drift physically

**Ariel Jonathan Roffé** – (358) On genetic drift as an evolutionary force

**Cristian Saborido**, Victor Luque & Giorgio Airoidi – (359) What is the place of genetic drift in Price equation?

#### INDIVIDUAL PAPERS SESSION – AG-BOT

Genetics: Philosophical Perspectives

Papers:

Chair of the session: Brandon Allen Conley

**Qiaoying Lu** – (360) Revisiting the notion of interaction in the nature-nurture debate

**Brandon Allen Conley** – (362) Taking genetic representation seriously

10:30-11:00 – **Coffee Break**

11:00-12:30 – **Parallel sessions 15**

#### ORGANIZED SESSION DIVERSE FORMAT – AG-ZOO

Four-papers session – Talks and discussion (two interrelated sessions)

Organisms and Us: Part II: Using Typical and Atypical Organisms to Represent

Org. and chair of the session: Rachel A. Ankeny

Papers:

**Laura Bottrill** – (363) Plant blindness and model organism selection in the Cognitive Sciences

**Karina Burns** – (364) How much can a Koala ‘bear’? A history of the development of Australian marsupial models in psychological research

**Sara Green** – (365) Choosing the right organism: On the role and reliability of the August Krogh Principle

**Rachel A. Ankeny** and **Sabina Leonelli** – (366) Using organisms as representations

#### ORGANIZED SESSION STANDARD TALKS – CD-A1

The Evolutionary and Psychological Bases of Mindreading, Metacognition, and Folk Epistemology

Orgs.: Ximena Gonzalez-Grandon and Edouard Machery

Chair of the session: Ximena Gonzalez-Grandon

Papers:

**Edouard Machery** – (367) The evolution of epistemology

**Ximena Gonzalez-Grandon** – (368) Practical metacognition and feeling of knowledge

Panel discussion

#### INDIVIDUAL PAPERS SESSION – CD-A2

Genes and Information

Papers:

Chair of the session: María Cerezo

**Charbel N. El-Hani** – (373) Recent developments in the debates about the gene concept: The dynamic, systemic gene

**María José Ferreira Ruiz** & Jon Umerez – (374) Conflations in the parity thesis: Causation and information

**María Cerezo** – (375) Pros and cons of a causal dispositionalist theory of genes: Parity, complexity and simultaneity

#### INDIVIDUAL PAPERS SESSION – CD-A3

History of Biology III

Papers:

Chair of the session: Gregory J. Morgan

**Koen B. Tanghe** & Mike Kestemont – (371) The birth of Evolutionary Biology in Great-Britain: A stylometric peek behind a 19<sup>th</sup> century veil of anonymity

**Jennifer Bernard** – (376) Lynn Margulis, architect of the endosymbiotic theory

**Gregory J. Morgan** – (377) The rise of Tumor Virology at Cold Spring Harbor Laboratory, 1968-1980

INDIVIDUAL PAPERS SESSION – MINAS1

History/Philosophy of Biology and Anthropology

Papers:

Chair of the session: Susanne Lettow

**Susana Gisela Lamas**, Marta Crivos & Vicente Dressino – (379) Niche construction as a tool to understand parasitism: The case of a Mbyá Guaraní community

**Susanne Lettow** – (380) Life, Earth, human diversity. Henrik Steffen's *Anthropology* and the invention of race

12:30-13:00 – **Lunch Break**

13:00-15:00 – **ISHPSSB Council Meeting** – ROOM4

15:30-19:00 – **Excursions in São Paulo**