

рес присутствующих вызвал доклад профессора А.П. Козлова «Открытие нового феномена — экспрессии эволюционно новых генов в опухолях». В заключение выступил ведущий научный сотрудник В.Е. Стефанов с докладом «Изучение структуры и свойств биомолекулярных систем методами вычислительной химии (итоги и перспективы работы лаборатории биомоделирования)». После торжественного заседания присутствующих поприветствовали студенты старших курсов кафедры биохимии.

## **International Conference “Evolution and the Public” in University of Siegen, Germany**

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“And on this day, that is also the bicentennial of Charles Darwin's birth, it's worth a moment to pause and renew that commitment to science and innovation and discovery that Lincoln understood so well.”<sup>1</sup> — Barack Obama's reference to Charles Darwin in a speech commemorating Abraham Lincoln's birthday, reflects the President's appreciation for the British naturalist and his scientific achievements. But the call for a new commitment to science also hints to an inglorious history of conflict and controversy, misuse and misunderstanding of science in general and of Darwin's theory of evolution in particular. Especially the conception of humans evolving from animal species challenged the biblical account that a deity created the earth and hence was considered blasphemous, when Darwin published it in his landmark book “On the Origin of Species” in 1859. A century and a half later, the legacy of history's most noted naturalist continues to stir controversial debates among scientists and the general public. Numerous conferences, publications and an extensive coverage in all kinds of media in the bicentenary of his birth witness the long-lasting impact of Darwin's theory of evolution on a broad range of issues not only affecting religion, but also politics, science, society and culture.

On September 3–5, 2009 the University of Siegen Conference “Evolution and the Public. The discussion of a scientific idea and its ramifications since Charles Darwin (1859–2009)” gathered about 40 scientists from 15 different countries to examine historical and recent aspects of the debate on evolution and its relation to the public. With the financial support of the Fritz-Thyssen-Foundation, convener Professor Dr. Angela Schwarz, chair of Modern History at the University of Siegen, succeeded in setting up a conference with a remarkable degree of interdisciplinarity by welcoming academics from various branches of science — history, theology, sociology, philosophy, media studies, history of art, anthropology and American studies.

The goal of the conference, as Schwarz highlighted in her introductory remarks, was to broaden the understanding of evolution not primarily as a theory of natural science but as an essential part of the social history of the past 150 years. She also introduced the seven sections that the conference was structured into:

### 1. Issues and Arguments of an Emerging Public Debate.

<sup>1</sup> Barack Obama, Remarks at the Abraham Lincoln Association Annual Banquet in Springfield, Illinois, February 12, 2009 // URL: <http://www.gpoaccess.gov/presdocs/2009/DCPD200900082.htm> (October 6, 2009).

2. Evolution and Religion — a Controversy without End?
3. Images of Scientists and the Public.
4. Eugenics: Defining an Ideal.
5. From Darwinism to Social Darwinism.
6. The Debate on Evolution in the Age of the Human Genome.
7. Evolution of the Public and the Future of the Debate.

Addressing the aforementioned issues by giving an overview of the last 150 years of debate, Peter Bowler (Belfast) pointed out that evolution has often been misused as a trigger for conflicts. He argued that they would have occurred even without Darwin and his publication in 1859. Explaining the transfer of evolution to the cultural sphere by using the example of art, Thomas Junker (Tübingen) advocated a generalization of the theory of evolution.

The first day also reflected on issues and arguments of the emerging debate on evolution and on the controversy about evolution and religion. In the first section, which was characterized by a broad range of issues, Peter Kjaergaard (Cambridge) discussed the conception of the missing link and the lasting effects on public understanding of human evolution. Despite the decline of its scientific relevance, Kjaergaard argued that adherents and critics of evolution hailed the missing link as a crucial proof to the correctness of the theory. Chris Manias (London) investigated how some of the main elements of Darwinian thought related to research into human prehistory in the second half of the nineteenth century, particularly as it was discussed in Britain, France and Germany. He concluded that much discourse on human prehistory represented attempts to rework rather older formulations within a new scientific idiom, in which Darwinian models provided an important reference point to either bolster certain ideas or to react against. Pieter R. Adriaens (Leuven) argued that homosexuality has not always been harmful for reproductive success, as evolutionary psychologists seem to assume. He made the case against the view that there is something like a ‘gay gene’, and that the difference between homosexuality and heterosexuality is somehow hard-wired. Adriaens advocated a new understanding of male homosexuality as an evolutionary social construction which would help to move beyond the traditionally polarized debate between evolutionary psychologists and social constructionists. Rebecca Ayako Bennette (Middlebury, VT) showed how debates over Darwinism illuminated the struggles over national identity in Germany. She examined various tactics that aimed at presenting Darwinism as scientifically faulty and fundamentally un-German, completely reversing the liberal polemics used to foster Catholic exclusion from the national identity being created and contested in the 1870s.

The second section dealt with the controversial topic of religion and evolution. Jeffrey H. Schwartz (Pittsburgh, PA) suggested that the current conflict would not exist, had the efforts of a diversity of biologists in the UK and Western Europe to infuse evolutionary discourse with a synthesis of morphology and genetics not been attacked during the 1940s by the dominant evolutionists residing in the United States. He argued that this synthesis’ elimination of alternative evolutionary thinking and its synonymizing Darwinism with evolution provided opportunity for scientific creationist/intelligent designist criticism, some of which was reminiscent of arguments that Darwin’s contemporaries and later evolutionists, who embraced different but no less scientifically valid theories, levied against the major elements of Darwinism. While Chong-Fuk Lau (Hongkong) and Josef Bordat (Berlin) weighed in on the philosophical discussion of Intelligent Design and Creationism, Mikhail Borisovich Konachev (St. Petersburg) and Michael Roberts (Lancaster) dealt with historical and recent developments regarding evolution and religion in their home countries. Konashev contrasted the positive reception of

Darwin's evolutionary theory in Imperial and Soviet Russia with the growing antievolutionism in the post-Soviet era. Illustrated by poll data, he emphasized the declining appreciation for evolutionary theory in the public and gave a critical account of the huge influence of the political and religious elites on the mass media polemicizing against the scientific community. Roberts exposed motives and tactics of creationists in Great Britain whose influence in church and education has grown since 1969. He stressed the importance of the deep conviction of the few creationists who persuaded fellow Christians to reject their previous convictions. According to Roberts, their tactics have been a mixture of older evangelical methods combined with a careful use of modern education and technology.

The second day of the conference was dedicated to images of scientists, eugenics, social Darwinism and the recent debate on evolution. The section "Images of Scientist and the Public" started with a plenary lecture by Eva Flicker (Vienna), who presented diverse images of women scientists in fiction film. Using a variety of film examples, she demonstrated how the image of women in science has changed in the last 60 years. Flicker stressed that certain stereotypes have remained despite an emancipatory development of female scientists and their image, for recognition among male colleagues is still largely withheld. With clips from the film "Darwin's Theory of Evolution" by the American producer Max Fleischer, Scott MacKenzie (Toronto) illustrated the animator's adaptation of Darwin's "The Origin of the Species" into an educational film, the political and social problems the film faced, and the reception of the film in the United States at the time. By analyzing the film itself, film trade journals of the time, newspaper accounts and documentation held by the Museum of Natural History, he traced the highly contested debates which surrounded the film in the public sphere and explored this relatively early and largely forgotten documentary film which functioned as an attempt to popularise the theories of Darwin through the use of cinema. Leesa L. Rittelmann (Fredonia, NY) presented on the ways in which portrait photography has functioned as evidentiary support for physiognomic and evolutionary theory in Germany from the late nineteenth century to the 1930s. She focused on portrait photo-books published by racial theorist Hans F.K. Guenther, leftist photographer August Sander and Nazi photographer Erna Lendvai-Dircksen. Rittelmann challenged the existing art historical meta-narrative that posits leftist artists and intellectuals as wholly opposed to the supposedly outmoded "pseudo-science" of physiognomic theory so popular with reactionary forces. By pointing to the shared interest in physiognomy on the part of both progressive and reactionary photographers, Rittelmann also intervened in ongoing historiographic debates regarding the question of continuity between photography in the Weimar Republic and the Third Reich. According to Rittelmann, Darwin's impact on the history of German portrait photography was less a result of intentional design than of the gradual, somewhat unpredictable adaptation of select traits over time.

The controversial topic of "Eugenics" was discussed from a variety of perspectives. Amy Carney (Tallahassee, FL) analysed the formation of eugenic ideals in twentieth-century Germany and how Heinrich Himmler attempted to implement those theoretical constructs in the Nazi SS in the 1930's. She specifically focused on Himmler's engagement and marriage command, which required each SS man and his future bride to receive approval for their marriage. The examination process that every couple had to submit to implement many of the measures that German eugenicists had advocated for decades. It turned scientific rhetoric into reality. Aaron Gillette (Houston, TX) discussed his approach to teaching the history of eugenics to students from different racial, ethnic and national backgrounds. He argued that the cultural differences among students should be taken into account, that historical examples of the students own cultural backgrounds tend to have a positive impact on their learning, and that emphasize-

ing the global influence the eugenics movement once had and its connection to the national and ethnic backgrounds of the students might help impart the lessons we learn from eugenics to them. By using examples from many different countries, Gillette illustrated that the history of eugenics does not “belong” to any one group. He stressed the importance of understanding the history of eugenics as the misuse of science to justify discrimination, violence, and state terror against specific ethnic and national groups. He contended that this dismal legacy rests not with one group or nation, but with all peoples.

With eleven speakers, the most comprehensive section was “The Debate on Evolution in the Age of the Human Genome”, which included a broad spectrum of topics. Donna J. Drucker (Indianapolis, IN) and Curtis D. Carbonell (Jersey City, NJ) reflected on the debate on evolution within the scientific community. While Drucker emphasized the contribution of sex researcher Alfred Kinsey to evolutionary theory, Carbonell highlighted Stephen Jay Gould’s challenge to the orthodoxy in evolutionary biology and his revision of Darwinism by attacking the prevalence of Darwinian functionalism. Crossing over to the subject of Social Darwinism, Yoshiya Makita (Boston, MA/Tokio) discussed the social implications of mental disability in early twentieth century New York while Michael Beetz (Jena) presented critically on the negative reception of Herbert Spencer. Although the expression “survival of the fittest” goes back to Spencer, Beetz argued against reducing him to a mere Social Darwinist because it would undermine the tremendous impact of Spencer’s social theories and his other scientific achievements.

A panel discussion titled “Presenting Darwin in the Media” concluded the second conference day. Julia Voss (“FAZ”), Oliver Hochadel (“heureka!”), as well as Petra Küntzel and Alexandra Gögl (“Bayerischer Rundfunk”) discussed aims and methods of presenting Darwin and the idea of evolution in the year of the double anniversary and the ways people respond to it. Each media representative explained their respective approach in dealing with the topic of Darwin and evolution in 2009, whether it was printed publication, radio feature, television or multimedia internet presentation. A controversial debate arose on the conflict between reaching the widest possible audience and the exact presentation of scientific facts. However, there was much agreement on the high level of public attention to evolution, even without the double anniversary, because of its relevance to various present-day political, cultural, social and religious issues.

Continuing the section “The Debate on Evolution in the Age of the Human Genome” on the third day, the focus shifted to the adaptation of evolution in various popular and high culture media. Mita Banerjee (Siegen) examined the link between eugenicist thinking and aesthetic codes in Hollywood film. By juxtaposing two films, Doris Day’s “The Thrill of It All” and John Singleton’s “Boyz n the Hood”, she revealed continuity between eugenicist ideas in the U.S. from the 1950s to the present. She argued that Neo-Darwinism undergirds contemporary American culture. According to Banerjee, the focus of these films is on the reproductive choices of white and black women and on a male anxiety about the reproductive choices of women. Convener Angela Schwarz (Siegen) discussed the literary and cinematic adaptation of popular images of the ideal man and visions of a future dominated by the misuse of genetic engineering. She pointed out that the science fiction genre is mainly responsible for transferring the discourse about genetic engineering to a truly general audience or public. According to Schwarz, Science Fiction conveys imaginations of the opportunities of genetic engineering that the scientific community is not able to convey in a manner readily consumable by the majority, i.e. people largely indifferent to science.

While the presentations of Schwarz and Petermann (Münster) on the role of utopias and their public understanding discussed visions of future roles of genetics, Marianne Sommer (Zürich) and Oliver Hochadel (Barcelona) focused on genetics as a means to reconstruct the

past, thus addressing questions of ancestry and identity. Marianne Sommer presented on the ways in which the rise of anthropological genetics as a science, its commercialization and popularization, impacts notions of history. Using the example of the first Swiss-based company offering genetic genealogy and history, she looked at its attempts to open up the European market and to develop products of special interest to Europeans. The example also contrasted differences between American and European concerns about ancestry. Sommer highlighted the degree to which the European market itself is constituted by diverse customer groups whose approach to the genetic technologies varies greatly depending on the extent to which their national identity and history is politically contested. She made the case for a declining identification with one's own society resulting in a need for figuring out one's individual origin and thus creating an opportunity for commercialization. Using the example of reconstructions of hominids in natural history museums, Oliver Hochadel reflected on how these imaginations of "our" ancestors are produced and received. As the power of images is very difficult to overcome and the reconstruction of hominids is best understood as an interpretation, Hochadel called to make these subjective parts of the production process transparent to the public.

Concluding the conference, Franz Wuketits (Vienna) discussed "The Future of Evolution and the Evolution of the Future". He reflected on the evolution of mankind and the future of the theory itself. Although Wuketits described the human evolution as more or less completed, he assumed that human psychology would never abandon the idea of progress and development for the better, causing a continuation of the debate on evolution. Wuketits also argued for a broad application of the evolutionary paradigm to cultural phenomena and human behaviour serving as a means to enhance their understanding.

Highlighting the most important aspects of the interrelation between evolution and the public, untangling the evolutionary theory from public and scientific misuse and misunderstanding, and covering 150 years of the debate on evolution with an interdisciplinary approach, "Evolution and Public" was characterized by a degree of comprehensiveness that is second to none in 2009, the "Darwin Year". Without a doubt, this conference has furthered the academic study of evolution and its relation to the public. Some aspects like Social Darwinism and biotechnology were underrepresented, but they will be included in a bilingual publication (German-English) for a general readership and on a website, inviting users to get information on and participate in the ongoing debate on evolution. Although President Obama did not address the conference "Evolution and the Public" in Siegen, his call for a new commitment to science, discovery and innovation has clearly been answered here.

## **«Эволюция и общественность» — международная конференция в университете Зигена, Германия**

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3–5 сентября 2009 г. в университете г. Зиген (Германия) состоялась конференция под общим названием «Эволюция и общественность». Чтобы обсудить научные идеи Ч. Дарвина и их развитие в разных направлениях за 150 лет, собралось 40 исследователей из 15 стран. Основной целью конференции было изучение исторических и современных аспектов дебатов об эволюции

в их взаимосвязи с обществом. Конференция состоялась при финансовой поддержке Фонда Фриц-Тиссена. Учредитель мероприятия — профессор Анжела Шварц, заведующая кафедрой современной истории университета Зигена, добилась успеха в организации не только международной, но и междисциплинарной конференции. С докладами выступили ученые, работающие в самых разных областях знания: истории, теологии, социологии, философии, истории искусства, антропологии и так далее.

## Юбилей Дарвина в Финляндии

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Научное сообщество Финляндии встретило 2009 г. рядом мероприятий, посвященных юбилею Чарльза Дарвина. Первое из них состоялось уже в начале года, с 7 по 11 января. Раз в два года университет Хельсинки проводит так называемые «Дни науки», общей темой которых в этом году стала эволюция. В рамках этой темы был освещен широкий круг вопросов, от естественно-научных до гуманитарных. Эволюционизм в современной Финляндии, изменения в окружающей среде и мире, эволюция космоса, эволюция человека, генные технологии и селекция растений, глобализация и эволюция экономики, эволюция музыки, литературы и искусства, язык рождения и смерти — вот краткий обзор тем, обсуждавшихся в эти дни в университете Хельсинки.

В следующем месяце состоялось второе событие, посвященное юбилею Чарльза Дарвина. Академия Финляндии провела юбилейный семинар на тему «Происхождение видов, развитие эволюционной теории», который состоялся в Хельсинки 12 февраля 2009 г. Открыт он был вступительным словом директора Академии Финляндии Марку Маттила «Эволюционные исследования и наука в обществе». Затем выступили несколько профессоров университета Хельсинки и ряд ученых из других научных институтов. Темы докладов также охватывали широкий круг вопросов — от «Выбор партнера как часть теории полового отбора» до «Дальновидна ли мать-природа, и что делать, если ответ — нет». Все мероприятие заняло один день, начавшись в 9.30 утра и закончившись в 16.15 фуршетом участников.

Задействованной в юбилейных мероприятиях оказалась не только столица. 25 марта 2009 г., спустя месяц после описанного выше семинара, состоялось очередное событие, на этот раз в университете Юваскюла при поддержке Института биологических наук и изучения окружающей среды и частичной поддержке университетов Хельсинки и Турку. Как и предыдущий, этот семинар занял один день, начавшись в 10.15 и закончившись в 21.00. Программа семинара состояла из двух частей — до обеда на финском языке, а после обеда — на английском. Утренняя сессия началась с доклада профессора Академии Джоанны Мэйпс «Чем является эволюция, и чем она не является». После нее выступала профессор университета Хельсинки Хана Коко, опубликовавшая в этом году в соавторстве с другой исследовательницей книгу об эволюции, которая получила ежегодную государственную награду в категории «Научная публикация»; она прочла до-