
CURRICULUM VITAE

Patrick K. Albers

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PERSONALIA

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EDUCATION

PhD (DPhil) **Genomic Medicine and Statistics** (4-year PhD programme)
Wellcome Trust Centre for Human Genetics, Oxford
University of Oxford (Green Templeton College), United Kingdom

Thesis: Rare and low frequency variants and predisposition to complex disease

I am working on novel statistical methods to integrate population genetic theory with aspects relevant for complex disease research, with an applied focus on type 2 diabetes; supervised by Prof. Gil McVean and Prof. Mark McCarthy

MSc **Erasmus Mundus Master Programme in Evolutionary Biology (MEME)**, studying at
(1) Uppsala University, Sweden; (2) University of Montpellier II, France;
(3) Harvard University, United States; (4) Ludwig-Maximilians-University Munich, Germany

Degree: Master of Science in Evolutionary Biology (2 years, 2010–2012)

The MEME programme is a joint research-based course which requires course work (1st semester) and 3 independent thesis research projects (semester 2, 3, and 4).

4th semester **Ludwig-Maximilians Universität (LMU) Munich**, Germany
In collaboration with **Harvard University**, United States

Independent research project (30 credit points)

Thesis: Estimating the expansion of *Heteronotia binoei* (Bynoe's gecko) into the arid zone of Australia, using Bayesian inference methods; supervisors: Dr. Matthew Fujita (Harvard University), Prof. Dirk Metzler (LMU Munich)

3rd semester **Harvard University**, United States

Independent research project (30 credit points)

Thesis: Inferring polytomies in species trees from patterns in gene trees using coalescent theory and Approximate Bayesian Computation (ABC); supervisors: Prof. Scott Edwards and Prof. Dirk Metzler (LMU Munich)

2nd semester **Université de Montpellier II, France**
Independent research project (15 credit points) + course work (15 credit points)
Thesis: Traditional cultivation of Wild Yam (*Dioscorea nummularia*) in the Banks islands, Vanuatu – from ethnobiological and genetic perspectives; supervisors: Dr. Sophie Caillon, Prof. Doyle McKey

1st semester **Uppsala Universitet, Sweden**
Subjects: Evolutionary Processes, Evolutionary Patterns, Bioinformatic Analyses, Summer School (40 credit points)

BSc **Eberhard-Karls Universität Tübingen, Germany**
Degree: Bachelor of Science in General Biology (190 of 180 required credit points, 3 years, 2007–2010)
Thesis: Outbreaks of the crown-of-thorns starfish (*Acanthaster planci*) in community-based marine protected areas of Nguna-Pele, Vanuatu; supervisors: Prof. Nico Michiels (Univ. Tübingen), Dr. Christopher Bartlett (GTZ, Oceania)

studying abroad **James Cook University (JCU) Townsville, Australia**
Subjects: Marine & Rainforest Ecology, Conservation, Statistics in Ecology & Genetics (30 credit points, 1 semester, 2009)

INTERNSHIPS & RESEARCH ASSISTANCE

Institute of Anthropology and Human Genetics, Tübingen, Germany (Jun–Aug 2010)
Internship, working as laboratory assistant for a research project using microsatellite markers in *Drosophila melanogaster*; supervisor: Prof. Dr. Jürgen Tomiuk (Univ. Tübingen)

Oceanographic and Marine Research Station (STARESO) Corsica, France (May 2010)
Volunteering as field assistant, studying the functions and mechanisms of red fluorescence in marine fish; supervisor: Prof. Nico Michiels (Univ. Tübingen)

Nguna-Pele Marine Protected Area, Nguna-Pele Islands, Vanuatu (Dec 2009 – Feb 2010)
Volunteering as scientific advisor, working on ongoing research projects and marine management, instructing local volunteers and giving educational presentations to the rural public, while I was conducting my own research project for my BSc thesis.

Freshwater Ecology, James Cook University (JCU), Townsville, Australia (Jul, Aug 2009)
Volunteering as field assistant for 2 PhD candidates; 2 field trips to remote freshwater ecosystems in Queensland, Australia

Marine Research Institute (Oceans Research), Mosselbay, South Africa (Mar–Apr 2009)
Internship, working as field assistant for a research project on the Great White Shark (*Carcharodon carcharias*); supervisors: Dr. Ryan Johnson, Dr. Enrico Gennari

GRANTS & AWARDS

Wellcome Trust, PhD in the Genomic Medicine and Statistics programme (2012–2016); scholarship and tuition/college fees: £ 114,196; flexible research grant: £ 45,144

European Commission, Erasmus Mundus Programme; personal scholarship (2010–2012): € 23,000; and individual tuition scholarships: Uppsala Univ., Univ. de Montpellier II, Harvard Univ., LMU Munich

German Academic Exchange Service (DAAD), PROMOS Programme; grant for research assistantship on STARESO research station, Corsica (2010): € 500

PUBLICATIONS / MANUSCRIPTS

Raposo do Amaral FR, **Albers PK**, Edwards SV, Miyaki CY (2013) Multilocus tests of Pleistocene refugia and ancient divergence in a pair of Atlantic Forest antbirds (*Myrmeciza*). *Molecular Ecology*.

Albers PK and Fujita MK. Estimating the expansion of *Heteronotia binoei* (Bynoe's gecko) into the arid zone of Australia, using Bayesian inference methods. In preparation.
[3rd MSc thesis project, LMU Munich & Harvard University]

Albers PK and Edwards SV. Statistical limitations of inferring polytomies in species trees from patterns in multi-locus gene trees. In preparation.
[2nd MSc thesis project, Harvard University]

PRESENTATIONS / POSTERS

American Society of Human Genetics (ASHG) 2013, Boston (October 22 – 26, 2013)
PLATFORM TALK: "Meta-imputation: A simple and flexible method to combine multiple reference panels for imputing genetic variants" (Albers PK, Gaulton KJ, McCarthy MI, Abecasis GR)

Student Conference on Conservation Science (SCCS) 2011, New York (October 12-14, 2013)
POSTER: "Traditional cultivation of Wild Yam (*Dioscorea nummularia*) in the Banks islands, Vanuatu – from ethnobiological and genetic perspectives" (Albers PK, Caillon S, McKey D)

PROGRAMMING

R	C / C++	PHP	SQL	HTML & CSS	Reg. Exp.
<i>proficient</i>	<i>basic</i>	<i>proficient</i>	<i>proficient</i>	<i>proficient</i>	<i>proficient</i>

Prior to my studies, I worked as web developer and graphic designer on various web-based projects, as well as being responsible for my own self-managed internet-business. During my studies, I quickly learned R and C, and I used both languages extensively for my own research.

OTHER WORK EXPERIENCE

English Teacher, Luang Prabang, Laos (Mar–Apr 2010)

As a volunteer, I taught English to Buddhist Monks, school children, and staff of the national unexploded ordnances department (UXO LAO).

Librarian and Student assistant, Library of the Natural Sciences, Univ. Tübingen (Jun 2008 – Jul 2009)

I was responsible for the help and information desk, and assisted students and staff in literature research and computer cataloging.

Front Desk Manager, Hotel Villa L'Orange Bali, Gianyar, Bali, Indonesia (Mar–Apr 2007)

I was employed by a holiday resort, assisting the management and being responsible for communication with international guests.

Work and Travel Abroad, in New Zealand, Australia, Indonesia, Malaysia, Singapore, Thailand (Sep 2006 – Oct 2007)

Before I started to study Biology, I was travelling around the world for one year, also working in small jobs to gain broader experiences.

Software Developer and Web-Designer, Frankfurt am Main, Germany (Nov 2004 – Jul 2006)

I worked as freelancer for several companies on web-based projects. I started my own internet-business which I eventually sold to finance a year of travelling around the world.

UNIVERSITY SERVICE & ADMINISTRATION

Organising committee, MEME summer school 2011 (>50 participants) in Tübingen, Germany (Aug 2011)

Representative of the MEME programme, Erasmus Mundus Students and Alumni Association (2011 – 2013)

Student speaker, Erasmus Mundus Master Programme in Evolutionary Biology (MEME) (2010–2011)

Webmaster, official website of the MEME programme: <http://www.evobio.eu> (2010 – 2012)

Student Mentor, International Student Initiative, Univ. Tübingen (Jun-Aug 2010)

Scientific Advisor for research and management, Nguna-Pele Marine Protect Area Network, Vanuatu (Dec 2009 – Feb 2010)

LANGUAGES

German I am a native user; born and raised in Germany

English I am a proficient user; long stay and study abroad, e.g. in New Zealand, Australia and South Africa; my graduate studies (Sweden, France, United States, Germany) consisted of english-speaking subjects only

Bislama
(Vanuatu) I am a proficient user; living among indigenous people in Vanuatu for 5 months, thereby quickly learning Bislama, which is a creole language and mostly based on English and French

French I am a basic user; 5 years school education, studying in France, and I attended a language course during my studies in France

Czech I am a basic user; being taught by my mother, who was born and raised in the Czech Republic

PROFESSIONAL MEMBERSHIPS

American Society of Human Genetics (ASHG)

European Society of Evolutionary Biology (ESEB)

Society for the Study of Evolution (SSE)

International Society for Computational Biology (ISCB)

International Union for Conservation of Nature (IUCN): Commission on Ecosystem Management

AAAS/Science (awarded free membership through the AAAS/Science Programme for Excellence in Science)

Additional information. I have much experience outside of academia. Prior to my studies, I worked as a freelance programmer and started my own internet-business. With this financial backup, I travelled the world for one year, on my own and with a backpack only. For example, I discovered the Australian continent with my own 4WD (around and through the middle), I became a certified diver (PADI rescue diver, James Cook University research diver), I was running with the bulls in Spain (seven times), I became a certified safari guide in South Africa (FGASA level 1 license), where I also assisted in research on the Great White Shark, I participated in a volunteering programme and taught English to Buddhist monks in Laos, and, for the purpose of research, I lived with indigenous tribes in the South Pacific island nation of Vanuatu (five months in total).