Curriculum Vitae

Prof. Dr. Hans-Joachim Pflüger

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Kommandantenstraße 15, D-12205 Berlin, Germany, Tel. +49-30-8115578

Work Address
Freie Universität Berlin; FB Biologie, Chemie, Pharmazie; Institut für Biologie, Neurobiologie; Königin-Luise-Strasse 28-30, DE-14195 Berlin, Germany, Tel. +49-30-83854676, Fax: +49-30-83855455, e-mail: pflueger@neurobiologie.fu-berlin.de; home page: http://www.neurobiologie.fu-berlin.de

Birthdate and Birthplace
07 March 1949 in Ulm/Donau, Germany

Education

1985
Habilitation at the University of Konstanz, Habilitation thesis: Sensory-motor interactions in locusts: The study of a mechanoreceptive information pathway (in German), Habilitation lectures: (i) Path-finding of invertebrate neurones during development, and (ii) Development of vocalization in birds.

12-11-1976
Doctorate examination (Dr.rer.nat.) passed with *magna cum laude* , Title of thesis: On the control of rocking and walking movements in the Phasmids *Carausius morosus Br*. and *Extatosoma tiaratum* (W.S. MacLeay), in German, supervisor: Prof. Ulrich Bässler

1974 - 1976
University of Kaiserslautern, postgraduate student

Mar 1974
(Staatsexamen) state examination in Biology, University of Stuttgart

Jan 1973
(Staatsexamen) state examination in Chemistry, University of Stuttgart

1972 - 1974
University of Kaiserslautern (Biology, Zoology)

1968 - 1972
University of Stuttgart (Chemistry and Biology)

1960 - 1968
Kepler Gymnasium Ulm/Donau (Abitur, 12-06-1968)

Appointments

Present Position

since 1987
Professor of Neurobiology, Functional Neuroanatomy, Freie Universität Berlin

Honourable appointment

since 2007
Associated member(2007 – 2010) and member (since July 2010) of the Berlin "Bernstein Center on Computational Neurosciences (BCCN)"

since 2000
Member of the faculty of the "International graduate program Medical Neurosciences", Charité, Berlin

since 1991
Adjunct Professor, ARL Division of Neurobiology, University of Arizona, Tucson, USA

Previous Positions

1980 - 1987

Assistant professor (Wissenschaftlicher Assistent), and as of Oct 1982 temporary lectureship (Hochschulassistent), University of Konstanz, group of Prof. Werner Rathmayer (Neurobiology)

1977-1980

Assistant professor (Wissenschaftlicher Assistent), University of Bielefeld, group of Prof. Peter Görner (Neurophysiology)

Other Positions

1976 - 1977

Postdoc in the laboratory of Prof. Malcolm Burrows, Dept. of Zoology, University of Cambridge, Cambridge, England, supported by the DFG (Deutsche Forschungsgemeinschaft, Bonn; German Research Foundation)

1975 - 1976

part-time Biology-teacher (4 hrs a week), Aufbaugymnasium Kaiserslautern

Research grants

Current grants

since 2010

* PI and speaker of DFG research unit "Biogenic amines in insects: coordination of physiological processes and behavior" (FOR 1363)
* member of the "Berlin Bernstein Center of Computational Neurosciences" (BCCN), project together with Prof. M. Nawrot

since 2009

* Research grant DFG „Neuromodulatory neurones and suboesophageal ganglion" (joint project with Prof. Peter Bräunig, RWTH Aachen)

Previous grants

2009 to 2011

DAAD Project grant for collaboration with Prof. C. Duch, Arizona State University, Tempe, AZ, USA

April 2003 to April 2009

Member of graduate college: Functional insect Science (GRK 837)

November 2003 to March 2004

DFG-travel grant for sabbatical in New Zealand (University of Canterbury, Christchurch, New Zealand, Prof. LH Field) and Tucson (University of Arizona, Tucson, USA, Prof. RB Levine)

1999 – 2002

DFG-grant Pf 128/15-1 „Quantification of developmental dynamics", jointly with Prof. Obermayer, Dept. of Informatics, Technical University, Berlin

2001

Invitation to Israel, Ben Gurion University, Beer-Sheva, Israel (DFG-NCRD Agreement), host: Prof. F. Libersat

1998 - 2001

DFG-grant Pf 128/13-1 „Locomotion"

1998-2000

DAAD/NSF: Joint project with Prof. R. B. Levine (Tucson/USA)

Jan 1996 to Dec 2001

Member of SFB 515, DFG (Sonderforschungsbereich/ Collaborative research programme: Mechanisms of developmental and experience dependent plasticity in the nervous system)

1995 - 2004

Member of the graduate college: Signalketten in lebenden Systemen (signaling cascades in living systems) Freie Universität, Berlin

1995

Sabbatical, University of Arizona, Tucson (Dr. R. B. Levine, 3 months), and travel grant to Department of Zoology, University of Canterbury, Christchurch, New Zealand (Dr. L. H. Field, 3,5 months), funded by DFG

1994
Travel grant to Mauretania, funded by gtz (German Aid, GTZ)
1993-1995
NATO travel grant with Dr. R. B. Levine, Tucson
1991
Sabbatical at the University of Arizona, ARL Division of Neurobiology, Tucson, AZ, USA (Dr. R.B. Levine), supported by a DFG travel grant
1990 - 1992
Awarded a grant in the Human Frontier Science Program (HFSP) together with Drs. Burrows (Cambridge, GB), Laurent (Pasadena, USA) and Hisada (Sapporo, JPN).
1989 -1995
Speaker and Member of a special research group on Learning, Memory and Neuromodulation in Arthropods, funded by the DFG (DFG-Forschergruppe)
1987 - 1990
European Laboratory Twinning Grant by the EEC, together with Prof. M. Burrows
1987 - 1989
Member of research programme: Dynamics and stabilization of neuronal structure , funded by the DFG
1986
Research collaboration with Prof. M. Burrows, Dept. of Zoology, University of Cambridge, England, funded by the DFG
1985 - 1987
Research project on interneurones funded by a DFG grant
1984 - 1987
European Laboratory Twinning Grant by the EEC (European Community, Brussels) together with Prof. M. Burrows
1983
Research collaboration with Drs. M. Burrows, R. Elson and A. Watson, Dept. of Zoology, University of Cambridge, England, funded by the DFG
1981
Research collaboration with Prof. Burrows, Dept. of Zoology, University of Cambridge, England, funded by the DFG
1978 - 1985
Member of the research programme: Neural mechanisms of behaviour, funded by the DFG

Scientific organization, active participation in symposia
2012
* Chair of the program committee of the 10th International Congress of Neuroethology in College Park, Maryland, USA, August 5-10, 2012
* Organization of a Conference on „Biogenic Amines: coordinators of physiological processes and behaviour“, July 6 to 10, 2012 in Berlin
* C-organization (together with Dr. N.M. Biserova) of a School on “Functional Neuroanatomy and Neurobiology of Invertebrate Animals”, 23 August to 10 September 2012, White Sea Station of Moscow State University, Moscow, Russia

2011
* Invited faculty of the IBRO-Kemali school on invertebrate neurobiology in Naples, July 2011

2008
* Scientific organiser of the PENS-Hertie-Winter School, Obergurgl, Austria, 6 to 13 January 2008, (together with Randolf Menzel) **“*The design of neuronal networks: Contributions from Invertebrates*”**
* Janelia Farm Conference, May 2008 on “Arthropod brain centers”

2007

* Symposium “German Neuroscience Society meeting Göttingen” on “Generating rhythmic movement: from microcircuits to complex motor programs” (together with Prof. A. Büschges, Köln)
* Janelia Farm Conference, USA, 13 to 17 March 2007 (Insect Behavior: Small brains, big gains)

2006

* Organisation of “Arthropodenseminar – BUGS 2006” on Schwandalpe/Oberstaufen/Germany (20. to 24 September 2006)
* 8th Regional Conference of the International Society for Invertebrate Neurobiology, Kazan, Russia (12 to 18 September 2006)

2004

* Symposium on “Orchestration of Behaviour” at International Congress of Neuroethology, Nyborg, Denmark, 08 to 13 August 2004 (together with Fred Libersat, Beer-Sheva, Israel).

2003

* Organisation of a symposium during the Göttingen Neurobiology Conference together with Dr. Carsten Duch, “Arthropod neural and motor systems: from development to function and mechanics“
* Member of Program Advisory Committe for Dahlem Conference on „Microcircuits: The Interface between neurons and global brain function (chair: Sten Grillner).
* Co-organiser of Thihany Conference on Invertebrate Neurobiology, 5-9 July 2003

2001

*Organiser of Central European Conference of Neurobiology, 12th to 15th August 2001, Krakow, Poland, (together with Dr. Elzbieta Pyza, Krakow)

2000

* Speaker in Symposium 40, Ontogeny and maturation of rhythmic networks, FENS,24th to 28th June, Brighton, UK
* Co-organiser and faculty for European Nerve Net School, University of Bordeaux, France, July
* Co-organiser 6th East European Conference International Society for Invertebrate Neurobiology, Moscow and Pushino, Russia, 21st to 26th September
* Organiser of symposium, „Neuromodulators, hormones and the control of behaviour“, SFB 515, 24th to 25th November 2000, Berlin

1998

* Organization of Symposium: Processing of sensory information. Forum of European Neuroscience, 27th June to 1st July, Berlin

1998

* Chairman of the 5th International Congress of Neuroethology, Congress Committee, San Diego, August 1998, and organisation of Symposium "Neuroethology of species specific behavior", together with Prof. John Hildebrand, Tucson

1997

* Organisation of a practical course: The use of fluorescence microscopy in anatomy and physiology, for Neurowissenschaftliche Gesellschaft (together with Dr. H. Kettenmann, MDC, Berlin)
* Organisation of the symposium: Neural network and their ontogenetic changes, 25th Göttingen Neurobiology Conference.

1995

* Organisation of "Kleinsthirnkonferenz" (small brains), to mark the end of DFG-Forschergruppe (special research initiative) "Lernen, Gedächtnis und Neuromodulation bei Arthropoden" (learning, memory and neuromodulation in arthropods)

1994

* Organisation of a practical course: New physiological methods of the Neurowissenschaftliche Gesellschaft (together with Dr. H. Kettenmann, MDC, Berlin-Buch)

1992

* Organisation of the symposium: Identified Neurones and Behaviour , 20th Göttingen Neurobiology Conference

1989

* Member of local organising committee for the 2nd International Congress of Neuroethology, Freie Universität Berlin, 10 -16 September1996 (together with J. Erber, R. Menzel and D. Todt)

Guest researchers in my laboratory

Roberta Aralla, University of Milano, Italy
Dr. Natalia M. Biserova, RAS, Borok, Russia and Moscow State University (SFB 515, DFG project, DAAD)
Prof. Peter Bräunig, Aachen (SFB 515)
Prof. Malcolm Burrows, Cambridge, UK (Alexander von Humboldt Foundation Awardee, 1995)
Erica Ehrhardt, Bowdoin University Maine, USA
Prof. Laurence H. Field, Christchurch, New Zealand, (DAAD)
Marieke Hoekstra, University of Groningen, Holland
Dr. Eleni Kalogianni, Thessaloniki, Greece
Dr. Natalia L. Kononenko, Kaliningrad, Russia (DAAD , DFG and Alexander von Humboldt foundation)
Prof. Richard B. Levine, Tucson, Arizona/USA (NATO, DAAD/NSF and Alexander von Humboldt Foundation Awardee, 2000)
Oliver Morris, Cambridge, UK
Dr. Swidbert Ott, London, UK (DAAD)
Allen Rodriguez, UC Los Angeles, CA, USA
Lior Rosenberg, Beer-Sheva, Israel
Amit Sade, Tel Aviv, Israel (DAAD)
Dr. Paul A. Stevenson, Leipzig
Oksana Tuchina, Kaliningrad, RUS and Bremen
Dr. Varya Y. Vedenina, RAS, Moscow (SFB 515)
Dr. Alan H. D. Watson, Cardiff, UK (SFB 515)
Dr. Valery Zhukov, Kaliningrad State University, Kaliningrad, Russia (DAAD)

Journals

Editor of "Zoology", Elsevier
Editor of Journal of Comparative Physiology A, Springer
Member of the advisory board of NeuroForum,

Extramural Service

Current

since 2011

* treasurer of FENS (Federation of European Neuroscience Societies)
(from 2009 to 2011 "treasurer-elect")

since 2010

* "Vertrauensdozent" of the "Studienstiftung des deutschen Volkes".

since 2009

* elected member of IBRO WERC (West European Research Council)

since 2008

* elected as a member of the DFG-neuroscience review panel (Comparative neurobiology)

since 2007

* councillor of International Society for Neuroethology (ISN)
* councillor of International Society for Invertebrate Neurobiology (ISIN)

since 2003

reviewer for nation wide competition „Jugend forscht" (Bundeswettbewerb) and head of the Biology panel

Previous

2008

* appointed external reviewer for Biology departments of Lund-University, Sweden,

2003 to 2006

* Member of FENS school committee, then PENS (Program committee of European Neuroscience Schools)

2002 to 2005

* elected reviewer for DAAD (North America section)

2000 – 2003

* Review panel of the DFG (Zoology, Fachgutachter), for period 2000 to 2003

2003

* Review panel for CNRS "Neurobiologie des Réseaux neuronales" Bordeaux, France

1999 - 2003

* President of International Society for Invertebrate Neurobiology (Tihany, Hungary)

1992 - 2003

* Treasurer of Neurowissenschaftliche Gesellschaft e.V. (German Society for Neuroscience)

1991 - 1993

* Member of the advisory board for the annual Göttingen Neurobiology Conference

1992

* Review panel for ATSAF, Bonn, and gtz, Eschborn (German Aid)

1993

* Review panel of SERC (UK) for Initiative in Invertebrate Neurosciences

1995

* Organising Committee of the First Congress of the German Society for Neuroscience

1996 to 1999

* review panel of the DFG (Zoology, Ersatzgutachter)

Intramural Service

Current

since 2012

elected member of "Entwicklungs- und Planungskommission" (planning of future development) of Freie Universität

since 2000

member of the research committee (Forschungskommission) of the Freie Universität

since 1998

Erasmus organiser of the Institue of Biology (European teaching exchange programmes)

Previous

2006-2009

vice dean for educational affairs (Studiendekan) of Dept. Biology, Chemistry, Pharmacy

2000-2004

member of the Senat (Akademischer Senat), Freie Universität Berlin

1999-2003

Prodekan (Vicedean of the Department of Biology, Chemistry, Pharmacy; Freie Universität Berlin, and Head of the Institute of Biology

1993 - 1995

Dekan (head of department) of the Dept. of Biology, Freie Universität, Berlin

1991 - 1993

Prodekan (Vicedean) of the Department of Biology, Freie Universität, Berlin

1988 - 1989

Head of the Institute of Animal Physiology, Freie Universität, Berlin

1985 - 1987

Member of the research and grant committee of the University of Konstanz

1980 - 1982
Member of the Faculty Advisory Group, University of Konstanz

Teaching experience (in German and English language)
Lectures
* Introduction to Zoology, Comparative Animal Physiology, Behaviour
* Introduction to Neurobiology and Behaviour,
* Neural mechanisms of behaviour, Supersenses-the sensory worlds of animals, How small brains work, Networks in Brains, Brain and behaviour, From Genes to Behaviour, Model systems in neurobiology, New concepts and techniques in the neurosciences, Sensory physiology, Neurobiology: from genes to molecules, from neurones and networks to behaviour
* Functional Neuroanatomy
* Developmental biology, How the nervous system develops
* Introduction to ornithology, Birds as model systems, Bird biology
* Biology of Insects
* History of neuroanatomy, physiology and biology

Excursions
* Ecological and ornithological excursions (bird song and bird migration) and introductory courses to marine biology (destinations: Arcachon/France, Wilhelmshaven, List auf Sylt, Fehmarn, Helgoland, Rybachy/Russia, Kloster/Hiddensee)

Practical courses
* Practical courses for beginners and advanced students in neurobiology and behavioural physiology, electrophysiology and neuroanatomy including immunocytochemistry and confocal microscopy.
* Special practical courses for advanced students in neurobiology
* New methods in neuroanatomy, (Methodenkurse Neurowissenschaftliche Gesellschaft, 1994, 1997)
* European Nerve Net School, University of Bordeaux, France (2000, 2001), special training course in neurobiology, member of faculty

Invited guest lecturer and faculty
* Woods Hole, USA; Neural Systems and Behavior Course (2000, 2003) (**guest lecturer**)
* The European Nerve Net School, Bordeaux (2000 and 2001) (**faculty**)
* PENS-Hertie Winter School, Obergurgl, Austria (2008) (**faculty**)
* Universities of Trondheim, Norway (2003 and 2008) (**guest lecturer**)
* Cracow, Poland (2004 and 2008) (**guest lecturer**)
* RAS, Russian Academy of Science, Borok, Russia (2004, 2006, 2008) (**guest lecturer**)
* IBRO-Kemali School on Invertebrate Neurobiology" (2011) (**faculty**)

Outreach
* Special lectures for advanced training of teachers (neuroscience, neurobiology)
* Talks in various schools (Gymnasium)
* Girls' Day of Freie Universität
* "Lange Nacht der Wissenschaften" („night of science")

International Schools
* IBRO-Kemali School on Invertebrate Neurobiology" (2011) (**faculty**)
* PENS-Hertie Winter School Obergurgl, The design of neuronal networks: Contributions from Invertebrates. 6 to 13 January 2008 (Co-organizer, Randolf Menzel)

List of supervised theses
Diplomarbeiten/Diploma theses (in German or English)

01) Beatrix Vogel, Motorische und sensorische Innervation der Tibia der Wüstenheuschrecke *Schistocerca gregaria*. (Universität Konstanz 1982)

02) Karin Schirrmacher, Sensorische Eingänge in ein identifiziertes Bauchmarkinterneuron (A4I1) bei der Wanderheuschrecke. (Universität Konstanz, 1985)

03) Michael Ferber, Physiologische und histochemische Charakterisierung des Flugsteuerrmuskels der Wanderheuschrecke. (Universität Konstanz, 1986)

04) Claire Herrmann, Zur Entwicklung und Innervierung der Genitalmuskulatur der Wanderheuschrecke *Locusta migratoria*. (Universität Konstanz, 1988)

05) Martin Hoffmann, Innervation und Funktion der Rotatormuskeln der Coxa, M121 und M124, des Sprungbeines der Wanderheuschrecke. (FU Berlin, 1990)

06) Heidi Riens, Bilateral projizierende Neurone im Nervensystem der Wanderheuschrecke *Locusta migratoria.* (FU Berlin, 1991)

07) Sabine Gauglitz, Wirkung von Octopamin und Reserpin auf den absteigenden kontralateralen Bewegungsdetektor (DCMD) im Zentralnervensystem der Wanderheuschrecke *Locusta migratoria.* (FU Berlin, 1992)

08) Andree Czjzek, Entwicklung der Rezeptorzellen filiformer Prosternalhaare bei der Wanderheuschrecke *Locusta migratoria*. (FU Berlin, 1992)

09) Sibylle Hurdelbrink, Entwicklungsplastizität des zentralen Projektionsmusters von Haarsensillen der Wanderheuschrecke: Einfluß von Aktivität und Position. (FU Berlin, 1993)
This thesis received the Katharina Heinroth prize 1993 of the Gesellschaft naturforschender Freunde in Berlin

10) Susanne Meuser, Ontogenetische Entwicklung der Flügelstellmuskulatur (Pleuroaxillarmuskulatur) der Wanderheuschrecke, *Locusta migratoria*.(FU Berlin, 1993)

11) Antje Balke, Rasterelektronenmikroskopische Untersuchung zur Entwicklung verschiedener Haarfelder bei *Locusta migratoria*. (FU Berlin, 1994)

12) Carsten Duch, Vergleichende Analyse der motorischen Erregungsmuster des Subcoxalgelenkes von Schistocerca gregaria während verschiedener Laufsituationen. (FU Berlin,1994)

13) Sebastian Tuschick, Pharmakologische Charakterisierung muscarinischer ACh-Rezeptoren auf isolierten DUM-Somata von *Locusta migratoria*. (FU Berlin, 1994, together with Dr.Harald von Keyserlingk, Schering AG)

14) Dirk Bucher, Die Richtungssensitivität eines identifizierten windsensitiven Interneurons (A4I1) während der postembryonalen Entwicklung der Wanderheuschrecke, *Locusta migratoria* L. (FU Berlin, 1996)

15) Tim Mentel, Die unterschiedlichen Projektionsmuster sensorischer Afferenzen auf dem Prosternum der Wanderheuschrecke *Locusta migratoria* L. (FU Berlin, 1999)

16) Alex Bullerjahn, NADPh-diaphorase-Aktivität im Metathorakalganglion und in den Abdominalganglien der Wanderheuschrecke, *Locusta migratoria* L. während der postembryonalen Entwicklung (FU Berlin, 1999)

17) Dörthe Schroeter, Die intersegmentale Koordination des Heuschreckensprungs (*Schistocerca gregaria*) (FU Berlin, 2000)

18) Jaga Cholewa, Descending unpaired median neurons with bilaterally symmetrical axons in *Manduca sexta* suboesophageal ganglion. (FU Berlin/Jagiellonian University Krakow, Poland, 2006)

19) Frauke Christiansen, Octopamine and Tyramine interact to regulate flight performance in *Drosophila melanogaster*. (FU Berlin, 2006)

21) Sergej Hartfil, Das Unterschlundganglion und seine initiierende Rolle bei dem Laufverhalten (FU Berlin, 2010)

20) Leonard Nadler, Reaktion pterthorakaler neurone auf elektrische Stimulation der tritocerebralen Kommissur in semi-intakten Präparaten der afrikanischen Wüstenheuschrecke *Schistocerca gregaria*, Forskal. (FU Berlin, 2011)

21) Jan Untiedt

State examinations (Staatsexamen)

01) Robert Dietrich, Geschlechtsbestimmung nestjunger Mäusebussarde (2008)

02) Kerstin Schiwalski, Entwicklung eines rezeptiven Feldes bei der Wanderheuschrecke (2010)

Bachelor theses

01) Ana Teichmüller, Neuroanatomische und 3-D-Analyse eines Insektenganglions (FH Wildau, Berlin) (2008)

02) Christoph Ott, Projektionsinterneurone im Nervensystem des Tabakschwärmers, *Manduca sexta*. (2009)

03) Johanna Stärk, Neuroanatomische Untersuchungen sensorischer Projektionen in die Thorakalganglien von *Schistocerca gregaria*. (2009)

04) Sofia Getzin, Die Innervierung des Ovidukts der Wüstenheuschrecke *Schistocerca gregaria* durch Tyramin und Octopamin. (2009)

05) Ilona Jentschke, Salztoleranz bei Wechselkröten (2009)

06) Roberta Aralla, Cambiamenti nella concentrazione delle due ammine biogeniche comportamentodipenti, Tiramina e Octopamina, nel sistema nervosa (external bachelor thesis in Italian, University of Milano, Italy) (2009)

07) Julia Willer, Identifizierung von Projektionsneuronen mittels Tracer- und immunohistochemischer Methoden bei der Wüstenheuschrecke *Schistocerca gregaria* (2010)

08) Stefanie Jedlicka, Nachweis biogener Amine mittels immune-histochemischER Färbungen im Nervensystem der Taufliege *Drosophila melanogaster*. (2010)

09) Astrid Hielscher, Localisation of Bursicon in Schistocerca gregaria and Manduca sexta. (2010)

10) Madeleine Nimke, Bestandsentwicklung des Wiedehopfes (Upupa epops) auf den Truppenübungsplätzen Jüterbog-Ost und West 1997-2006 in Bezug auf die Witterung und die unterschiedlichen Biotoptypen (2011)

11) Maria Sparenberg, Co-localization of synaptic proteins with octopaminergic axon-terminals in a locust flight muscle (2011)

12) Jenny Blum, Projektionen tyraminerger/octopaminerger Neurone bei gestressten und gehungerten sowie ungehungerten *Drosophila melanogaster*. (2011)

13) Fauve Katharina de Arnal

Doctoral theses/PhD theses (in German)

01) Michael Ferber, Die Rolle octopaminerger, neuromodulatorischer DUM-Zellen im Abdomen von Wanderheuschrecken. (FU Berlin, 1990) DFG

02) Susanne Meuser, Ontogenie und Physiologie der Flügelstellmuskeln bei Wanderheuschrecken (FU Berlin, 1996) NaFöG Land Berlin and SFB 515

03) Carsten Duch, Aktivierung der modulatorischen, oktopaminergen dorsalen ungepaarten medianen (DUM) Neurone bei der afrikanischen Wüstenheuschrecke, *Schistocerca gregaria* Forskal. (FU Berlin, 1998, summa cum laude) DFG, Graduiertenkolleg

04) Sabine Gauglitz, Untersuchungen zur synaptischen Übertragung und Modulation einer identifizierten Synapse bei der Wanderheuschrecke *Locusta migratoria*. (FU Berlin, 1999) DFG

05) Dirk Bucher, Die postembryonale Entwicklung eines sensomotorischen Systems: Auf dem Weg zu geometrisch exakten dreidimensionalen Rekonstruktionen aus konfokalen Aufnahmen von Neuronen der Heuschrecke. (FU Berlin, 2000) SFB 515

06) Alex Bullerjahn, Stickstoff-Monoxid (NO) in modulatorischen Neuronen des ventralen Bauchmarks der Wanderheuschrecke, *Locusta migratoria* L. (FU Berlin, 2002) SFB 515

07) Tim Mentel, Die funktionelle Rolle oktopaminerger Neurone während der Lokomotion bei Wanderheuschrecken (FU Berlin, 2003) DFG

08) Daniel Münch, Untersuchungen von Strukturmerkmalen zur Aufklärung von NO-Wirkung, Wachstumsregulation und Verschaltungseigenschaften in Neuronennetzwerken von *Locusta migratoria* und *Manduca sexta*. (FU Berlin, 2006) DFG

09) Stefanie Ryglewski, Functional analysis of membrane properties in identified insect neuons: The roles of ionic currents for intracellular calcium signaling, intrinsic excitability and dendritic growth. (FU Berlin, March 2008)

10) Ricardo Vierk, Postembryonic maturation and putative modulation of the central pattern generator for flight in *Manduca sexta*. (FU Berlin, July 2009)

11) Bettina Stocker, Locust thoracic dorsal unpaired median (DUM neurons: Differential activation and peripheral distribution of octopamine and tyramine (FU Berlin, 2011)

12) Jessika Erdmann (in progress)

13) Konstantin Lehmann (in progess)

14) Sergej Hartfil (in progress)

Postdocs in my lab
Dr. Jan Rillich (current)
Dr. Marco Schubert (current)

Dr. Paul A. Stevenson (now apl. Prof. at Leipzig University)
Dr. Petra Skiebe-Corrette (now heading NatLab at Freie Universität)
Dr. Einar Heidel (deceased)
Dr. Carsten Duch (Emmy-Noether DFG) (now at ASU, Tempe, Arizona, USA, and soon Universität Mainz)
Dr. Natalia L. Kononenko (former AvH-fellow) (now postdoc at Charitè, Berlin)

Habilitations
Dr. Petra Skiebe-Corrette
Dr. Carsten Duch

Current and former scientific collaborations within Berlin-Potsdam
PD Dr. W. Blenau (Potsdam)
PD Dr. B. Brembs/Dr. J. Colomb (FUB)
Dr. N. L. Kononenko (Berlin, Charitè)
Prof. M. Nawrot (FU, within BCCN)
Prof. Dr. S. Sigrist/Dr. C. Zube (FU und "Neurocure")
Prof. Dr. C. Scharff (FUB)

Current and former scientific collaborations outside Berlin
Prof. Dr. Amir Ayali (Tel Aviv, Israel)
Dr. Natalia M. Biserova (Moscow State University, Moscow, Russia)
Prof. Dr. P. Bräunig (Aachen)
Prof. Dr. A. Büschges (Köln)
Prof. Dr. C. Duch (Tempe, Arizona, USA)
Prof. Dr. L. Field (University of Canterbury, Christchurch/New Zealand)
Prof. Dr. R.B. Levine (University of Arizona, Tucson/USA)
Prof. Dr. F. Libersat (Ben-Gurion University, Beer-Sheva/Israel)
Dr. G. Mayer (Universität Leipzig)
Prof. Dr. U. Müller (Saarbrücken)
Prof. Dr. Paul A. Stevenson (Leipzig)
Prof. Dr. A.H.D. Watson (Univ. of Wales, Cardiff/UK)
Prof. Dr. U. Wegener (Mainz)

Memberships
Verband deutscher Biologen (VdBiol), Deutsche Zoologische Gesellschaft (German Zoological Society), Neurowissenschaftliche Gesellschaft (German Society for Neuroscience), Society for Neuroscience (USA), International Society for Neuroethology (USA), International Society for Invertebrate Neurobiology (Hungary), Orthopterist's Society (USA), Deutsche Ornithologen Gesellschaft (German Society for Ornithology), Berliner Naturforschende Gesellschaft

Reviewer

*** for Journals**

J. Comp. Physiol A., J. Comp. Neurol.; J. Neurophysiol., J. Neurobiology, J. Exp. Biol., J. Neuroscience Methods, Neurophysiology, Cell Tissue Res., Phil. Trans. Roy. Soc. London, B., J. Insect Physiol., Entomologia Generalis, Zoology, Experimental Brain Sciences, NeuroForum, PLoS One, Arthropod Structure and Morphology, J. Morphology, Frontiers, Current Biology, JOVE,

*** for Organisations**

* DFG (German Research Foundation); DAAD (German Academic Exchange Service); Alexander von Humboldt Foundation (all Germany);
* Österreichischer Jubiläumsfond und Fond für die wissenschaftliche Forschung (FWF, Austria, Austrian Science Foundation);
* BBSRC (UK);
* ANR, CNRS (both France);
* Hungarian Science Foundation;
* Israelian Science Foundation

Research Interests

Neuroethology, Cellular analysis and development of sensory-motor networks, Functional role of neuromodulatory systems, Evolution of neuromodulatory systems and comparative physiology, Neuroscience, Behavioural and developmental neurobiology,

Other Biological Interests except neurobiology and behaviour

Zoology, Ornithology, Marine Biology, Sensory Ecology

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