

*Marcus Müller, Ph.D.*

*Associate Professor of Physiology*

\*06 November 1957 – †14 June 2020



Tübingen, 18 June 2020

### **In Memoriam**

It is with profound sadness that we inform you of the sudden and unexpected death of Marcus Müller on 14 June 2020. Marcus was a highly recognized auditory physiologist, tireless researcher and dedicated teacher.

Marcus was born on 06 November 1957 in Frankfurt am Main, Germany. He received his A-levels at the Carl-Schurz-Gymnasium in Frankfurt in 1977. Marcus earned his diploma in Biology with a major in Zoology and minors in Biophysics and Microbiology at the Faculty of Biology of the Goethe University Frankfurt in 1983. It was whilst studying electrophysiological responses in the inferior colliculus for his diploma thesis that Marcus discovered his passion for auditory research. Since then, for over 35 years, he successfully pursued that passion, enjoying a long-

standing career path in auditory research. He earned his Ph.D. degree in 1987 at the Goethe University, studying the functional organization of acoustic areas of the brain stem. Marcus completed his “Habilitation” to receive the academic title “Privatdozent” in 1997 at the Goethe University, with seminal contributions to the understanding of frequency and intensity coding in the cochlea.

Marcus followed a straight and impressive career path, working with notable hearing researchers and prominent laboratories during his training. Beginning with comparative auditory research, he investigated the frequency representation in the cochlea of different mammals with Professor Volkmar Bruns in the Collaborative Research Centre at the Faculty of Biology, Goethe University. Together with his wife Brigitte, Marcus then moved to Australia to the laboratory of Professor Brian Johnstone at the University of Western Australia in Perth to investigate the response properties of auditory nerve fibres and basilar membrane motion in guinea pigs. In 1991, upon his return to Germany, he became a prestigious Helmholtz Scholar and joined the Medical Faculty of the Goethe University in the Department of Physiology directed by Professor Rainer Klinke. Together with Professor Jean Smolders, Marcus started working in the newly developing research field of hair cell regeneration. In 1999, he moved to the position of Senior Scientist and Laboratory Head of Translational Hearing Research at the Hearing Research Centre at the Department of Otolaryngology – Head & Neck Surgery of the University of Tübingen. For over 20 years we had been extremely fortunate to have Marcus as an invaluable fulltime faculty member in our Department.

Marcus’ scientific contributions included over 80 peer-reviewed research articles, many of which were seminal contributions to the physiological place-frequency maps of the cochlea in different mammalian species. These publications serve as baseline references in the current literature. While maintaining his interest in frequency representations in the cochlea, Marcus extended his studies to other fields in auditory research. These fields included the de- and regeneration of the auditory organs of birds and mammals, potential tinnitus therapies in a salicylate model, models of endolymphatic hydrops and further *in-vivo* and *in-vitro* investigations on the protection, regeneration and functional improvement of hair cells and

auditory neurons. Using *in-vivo* mammalian models, Marcus also investigated biological strategies for improving the frequency specificity and efficiency of cochlear implants.

Marcus assumed countless responsibilities in the day-to-day operation of the laboratory, the Hearing Research Centre and the Department. Being a team player, he supported and co-organized numerous research retreats, symposia, courses and workshops, including the Inner Ear Biology Workshop. At the international level, he played a pivotal role in several multinational collaborative research endeavors such as the EU-projects “NanoCI” and “OtoStem”.

Marcus served as an outstanding teacher and mentor at all levels of training. This included medical students, natural science bachelor, master and graduate students, as well as residents in otolaryngology, postdoctoral clinical and research fellows. Over two decades, within the formats of the “Neurobiology Practical Course” and the “Summer School Hearing”, Marcus trained and served as a role model for a whole new generation of hearing researchers hailing from multiple academic disciplines.

Marcus loved the laboratory. His true devotion was the electrophysiological experiment and once the electrode was placed, he was in his element. At times, he seemed to develop a “lively” and “personal” relationship with his experimental set-ups, which he liked to call his “machines”. Being a passionate and rigorous physiology experimenter, he preferred to build the hardware and to program the software all by himself – staying in full control and leaving nothing to chance. Marcus replicated his highly innovative and reliable “machines” for many other auditory-research laboratories, selflessly sharing his knowledge and expertise to advance the research of others. His exceptionally broad range of scientific methodologies earned him the reputation of a universal auditory research scholar. He was a member of the German Zoological Society, Neuroscience Society, Association for Research in Otolaryngology, the German Society for Otolaryngology – Head & Neck Surgery and the International Otopathology Society a.k.a. “Schuhknecht Society”.

On a personal level, Marcus was a caring and generous colleague and friend. He gave willingly of his time and expertise to all. His door was always open. His frank and straight to the point “Frankfurt-type” attitude was blended with warm-hearted generosity, creating a unique character – Marcus – that we will all miss so much. Auditory research has lost an exceptional investigator, mentor and teacher and many of us have lost a wonderful colleague and very good friend who was always of immense support. We trust that his contributions, mentoring and teaching will endure, and through the numerous students, residents and colleagues whose lives and directions he has permanently touched, will continue to influence and advance auditory research and the future clinical practice of otology.

Marcus Müller is survived by his wife Brigitte Ehry, his brother and his niece and nephew. The funeral will be private in Frankfurt am Main. Condolence messages to his wife Brigitte may be sent to [mueller-ehry@web.de](mailto:mueller-ehry@web.de).

A memorial celebration of his life will be held on Friday, 24 July, in Tübingen.  
(please see attached invitation for details in venue).

Video messages are very welcome and may be uploaded the following link:

<https://uktcloud.medizin.uni-tuebingen.de/index.php/s/REudCxtLYZlxNpW>

Password (Passwort): marcus

With warm regards,

Hubert Löwenheim

Tony Gummer

Marlies Knipper

## *Invitation Memorial Celebration*

A Memorial Celebration for Marcus will be held at 4:00 p.m. on Friday, 24 July 2020 at the:

Liquid Kelter - Bar & Restaurant

Schmiedtorstrasse 17

72070 Tübingen

For directions: <https://www.liquid-kelter.de/contact>

Relatives, colleagues and friends are invited to attend. A light dinner reception will follow.

Current restrictions according to state law apply. The number of participants may have to be limited. Therefore, please announce your participation in advance to:

Monika Gaus, Department of Otolaryngology – Head & Neck Surgery, Tübingen

Tel: +49-(0)7071 – 29 88006

E-mail: [monika.gaus@med.uni-tuebingen.de](mailto:monika.gaus@med.uni-tuebingen.de)

Video messages for those who cannot attend are very welcome and will be shown at the event.

Video messages can be uploaded at:

<https://uktcloud.medizin.uni-tuebingen.de/index.php/s/REudCxtLYZlxNpW>

Password (Passwort): marcus

On request of the family memorial gifts may be made to

“Tübingen Hearing Research” hosted at:

Verein der Freunde der Universität Tübingen e.V.

IBAN DE98 6415 0020 0000 1106 08

ATTN: “Tübinger Hörforschung - Marcus Müller”

or

Ärzte ohne Grenzen e.V. (Médecins Sans Frontières)

IBAN: DE72 3702 0500 0009 7097 00

ATTN: “Marcus Müller”