Sunday, 31 July 2005

17:00 – 21:00	Registration	
from 18:00	Buffet Supper / Informal get together	

Monday, 1 August 2005

8:00	BREAKFAST	

Welcome and opening

8:45 – 8:50	T. Ritz	University of California at Irvine
8:50 – 9:00	V. Schäfer	WE-Heraeus-Stiftung, Hanau

(Chair: K. Schmidt-König / Mechanisms and Receptors)

	Sprecher	**Vortragstitel**
9:00 – 9:45	J. Kirschvink	A cautionary note about magnetoreception in animals and humans
9:45 – 10:30	K. Schulten	Biochemical mechanisms for magnetic orientation in animals
10:30– 11:00	COFFEE BREAK	
11:00– 11:45	W. Wiltschko	Magnetic orientation in birds: two receptors for two different tasks
11:45 – 12:30	E. Neumann	Molecular field reception by membrane structures
12:30	LUNCH	

(Chair: K. Schulten / Magnetite-Based Magnetoreception)

14:00 – 14:40	M. Walker	Structural and psychophysical studies of magnetite-based magnetoreception
14:40 – 15:20	M. Winklhofer	Magnetoreception on the Basis of Superparamagnetic Magnetite – From an Old Idea to a New Paradigm
15:20 – 16:00	COFFEE BREAK	
16:00 – 16:40	A. Kobayashi	TEM Tomgraphic Imaging of Biogenic Magnetite and the Biophysical Puzzle of Magnetosome Chain Collapse
16:40 – 17:10	G. Fleissner	A sensitive Gaussmeter in the pigeon's beak: the putative primary magnetoreceptor processes based on fine-structural details of magnetite-containing dendrites
17:10 – 17:40	B. Stahl	Magnetic considerations on Fe mineral bases magnetoreception
18:30	DINNER	Followed by a social evening at the invitation of the Wilhelm und Else Heraeus-Stiftung in the "Bürgerstube" at the Physikzentrum

Tuesday, 2 August 2005

8:00	BREAKFAST	

(Chair: J. Kirschvink / Radical pairs and magnetoreception)

9:00 – 9:40	P. Hore	Computer simulations of an avian magnetoreceptor based on photo-induced radical pairs
9:40 – 10:20	C. Timmel	The effects of combined weak oscillating and weak static magnetic fields on radical recombination reactions – a diagnostic test for the radical pair mechanism
10:20 – 10:50	COFFEE BREAK	
10:50 – 11:30	T. Ritz	Oscillating field effects on magnetic compass orientation of migratory birds
11:30 – 11:50	P. Thalau	The effects of HF-fields on the magnetic compass orientation of Zambian mole-rats, *Cryptomys anselli*
11:50 – 12:30	M. Ahmad	Magnetic field effects on cryptochrome photoreceptor - dependent responses in plants
12:30	LUNCH	

(Chair: Peter Hore / Neurobiological aspects of magnetoreception)

14:00 – 14:40	H-J. Bischof	Structure and function of the avian visual system, with speculations on the components which may process earth magnetic field information
14:40 – 15:20	R. Wiltschko	Magnetic orientation of birds under different light regimes
15:30 – 16:00	COFFEE BREAK	
16:00 – 16:40	H. Mouritsen	The magnetic compass of birds - molecular and neurobiological evidence supporting a light-mediated mechanism
16:40 – 17:00	A. Möller	Retinal cryptochrome in a migratory passerine bird: a possible transducer for the avian magnetic compass
17:00 – 17:40	P. Němec	Neuroanatomy of magnetoreception: inducible transcription factors as tools for dissecting mole-rat and homing pigeon magnetosensory systems
17:40 – 18:00	S. Cain	Giant neurons and cilia: the neuroethology of magnetic orientation behavior in a nudibranch Mollusc
18:30	DINNER	
20:00 –	**Poster session**	
	(posters are displayed during the whole seminar)	

Wednesday, 3 August 2005

8:00	BREAKFAST	

(Chair: M. Walker / Magnetic effects in plants, humans and other organisms)

9:00 – 9:40	P. Galland	Magnetic and light reception in plants
9:40 – 10:00	M. Vacha	Behavioral non-conditioning essay in insect magnetosensitivity research
10:00 – 10:20	L.Gomes Abraçado	*Solenopsis interrupta* ant magnetic studies: sample preparation and diet effects
10:20 – 10:50	COFFEE BREAK	
10:50 – 11:10	D. Shcherbakov	Magnetosensation in zebrafish
11:10 – 11:50	H. Prior	Lateralization of spatial orientation in birds and its relevance for magnetic orientation
11:50 – 12:30	F. Thoss	Geomagnetic field and human visual system - results of threshold measurements under various conditions
12:30	LUNCH	

End of the seminar and departure