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DOI 10.3969/j.issn.1000-3045.2012.Z1.002

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Max Wundt 1879

Wilhelm

Physiological Psychology includes all studies concerned with physiologic correlates of behavior <sup>[1]</sup> <sup>[2]</sup>

Biological Psychology Behavioral Neuroscience <sup>[3]</sup> Psychophysiology Neuropsychology Cognitive Neuroscience

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magnetic stimulation, TMS

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transcranial

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transgenet-

knockout

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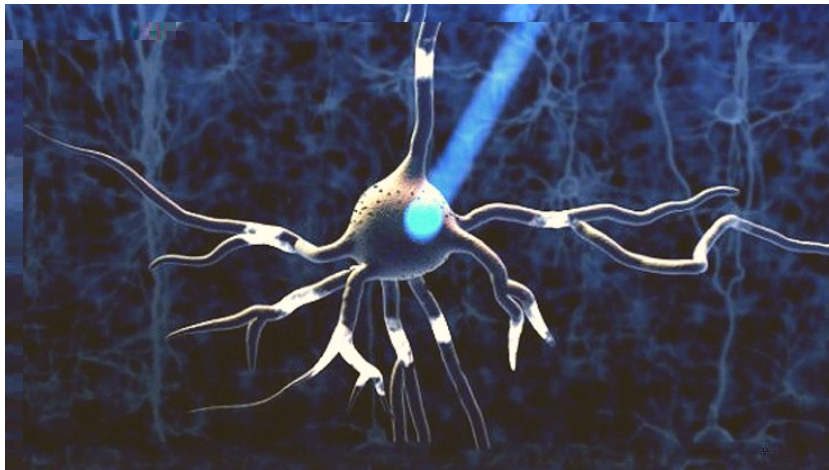
(optogenetics)

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single photon emission computed tomography, SPECT  
positron emission tomography, PET  
functional magnetic resonance imaging, fMRI 3



flavoprotein

2 Image courtesy of MIT McGovern Institute & MIT Synthetic Neurobiology Group

endogenous fluorescence protein

rescence protein

CCD

electroencephalography, EEG  
event-related potential, ERP

flavoprotein fluorescence

magnetoencephalography, MEG

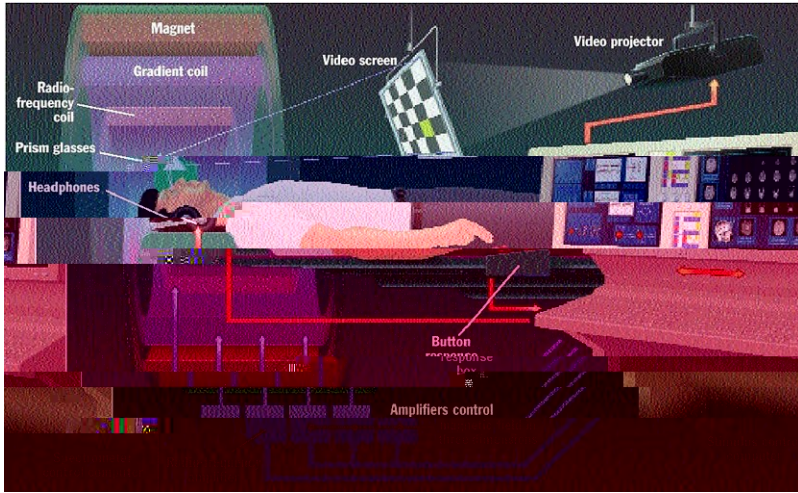
imaging

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microdialysis



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fMRI

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ERP

MEG



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## Physiological Psychology: A Science about Interactions between Mind, Behaviors, and Neural Activities

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**Abstract** Physiological Psychology (PP) is the science studying the relations between mind, behaviors, and neural activities. It is closely related with Biology, Physiology, Neuroscience, Information Science, and Sociology. This review introduces the basic concepts of PP, and highlights its principles and developing trends. Since PP aims at behavior, mind and consciousness, it is distinct from Neurophysiology and Neurobiology; PP not only involves studies of function, mechanism, individual development, and evolution, but also emphasizes the integration of studies at these perspectives; the development of PP keeps pace with the general progression of science and technology, with a great potential of multi-disciplines interaction and collaboration; the diversity and complementarity of research methods for PP enriches the hierarchy of the structure of PP; PP promotes the understanding of psychological uniform through the study of brain uniform; PP contributes a lot to the exploration of psychiatric abnormalities. Finally, this review discusses the future of Theoretical Physiological Psychology.

**Keywords** brain functions, neural mechanisms, animal models

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1994 Carleton 2000

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