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NON-HUMAN PRIMATE MODELS FOR HUMAN DISEASES

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Non-human primates have been used to model diseases in humans for several decades. The success of these paradigms has issued from comparable physiology and endocrinology, cognitive skills, brain morphology, and social complexity in adult monkeys and humans. In most preclinical studies in non-human primates the species-of-choice is the macaque monkey. However, there is an increasing trend to investigate the marmoset monkey in biomedical research programs. Therefore, this symposium is focused on research in these two species. In the first presentation **E. Sasaki** will report on the successful creation of transgenic marmoset monkeys providing a new animal model for human diseases that has the great advantage of a close genetic relationship with humans. In the second presentation, **M. Takada** will discuss the potential of viral vector application in macaque monkeys as a therapeutical approach in the treatment of Parkinson's disease. The wide immunological gap between humans and laboratory rodents makes many disease models in these species invalid. **B. t' Hart** will report on a model of chronic multiple sclerosis -experimental autoimmune encephalitis in the marmoset monkey - that can help to bridge this gap. Using a comparative endocrine approach to the diversity of adrenal androgen biosynthesis and its developmental timing in female macaques and marmosets, **D. Abbott** will provide a unique insight into mechanisms underlying adrenal androgen regulation and its pathophysiology in humans (e.g. polycystic ovary syndrome; PCOS). Finally **E. Fuchs** explores aspects of programming obesity in marmoset monkeys to study chronic aspects of obesity and its long-lasting effects.

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