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METHODS TO MEASURE PHYSIOLOGICAL AND BEHAVIORAL ACTIVITIES IN NON-HUMAN PRIMATES

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Refinement and improvements of non-human primate welfare in laboratory conditions are achieved by improving and standardizing the methods and techniques and by the dissemination of the corresponding knowledge which is the major aim of this symposium. Most of what is currently known on non-human primate cognitive neurobiology /neuroscience has been collected by transferring the animals for their daily testing in an experimental area spatially separated from their housing quarters. In spite of its efficiency, this 'classical' procedure has several limitations calling for alternative experimental procedures for testing non-human primates in laboratories. **A. Izumi** and **K. Nakamura** present two highly innovative approaches to quantify cognitive capacities in macaques and marmoset monkeys. **D. Abbott** reports on a series of experiments in marmoset monkeys aiming to asses the in vivo the release of gonadotropin releasing-hormone from the hypothalamus. A number of studies of non-human primates require the extended or continuous collection of physiological data. For ethical and scientific reasons the restraining of the animals, their handling and invasive procedures should be kept to a minimum. The only approach that fulfills these conditions is the remote collection of such data using autonomous devices that transmit the collected data wirelessly. **E. Fuchs** will discuss the application of new telemetric devices to register core body temperature and EEG in marmoset monkeys representing a significant refinement and an improvement for longitudinal studies in this species.

Keywords: cognition tests, repeatable push-pull perfusion technique, telemetry