

**ECNP Targeted Expert Meetings (TEMs)
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Report on the TEM Affective Disorders and Antidepressants

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There has been a recent resurgence of interest in the idea that depression, and particularly symptoms of anhedonia and low motivation, are associated with dysfunction in the reward circuitry of the brain, including the ventral striatum and orbitofrontal cortex. In this TEM, we brought together key researchers and experts in preclinical animal models of reward, researchers in translational experimental medicine methods and psychiatrists involved in both clinical research and patient care.

The first presentation by Gaetano Di Chiara (University of Cagliari, Italy) provided a seminal review of the role of the mesolimbic dopamine project in natural and drug rewards. This was followed by a lively discussion on the role of dopamine in reward processes and how this may be relevant to the clinical presentation of depression. We also discussed the need for greater translation and refinement of human models to tap into similar processes to those well characterised in non-human animals.

The second presentation was provided by Chantal Martin-Zoelch (Zurich, Switzerland) who provided an elegant insight into the role of dopamine in depression using both PET and fMRI neuroimaging methods. The implications of this approach for treatment development and for understanding the critical role of dopamine across patients in depression was highlighted during the discussion of this presentation.

The final speaker, Phil Cowen (Oxford, United Kingdom), outlined recent evidence exploring the effects of conventional treatment strategies on reward processing in humans. There was vigorous discussion about the clinical translation of these findings and to what extent aberrant reward processes are critical in depression and its treatment.

All presentations by the main lecturers and discussants were of exceptional quality and gave rise to lively and interesting debate. Ideas for future research strategies and for improving the translation of preclinical to clinical work were discussed. A key outcome of this meeting will be the generation of a position statement on the potential and need for standardisation of methods and approaches to study reward processes in man.