"NEW SCIENTIFIC IMPULSES TOWARDS 3R ALTERNATIVES"

SYMPOSIUM REPORT 25TH SEPTEMBER 2017



The Innovation Centre 3Rs (IC-3Rs), an initiative of the Vrije Universiteit Brussel (VUB), aims to shine a spotlight on alternative methodologies that incorporate the 3Rs principle of *Refinement, Reduction & Replacement*. The platform was launched on the 25th September 2017 with an inaugural symposium at VUB's Health Campus, Jette.



Among the introductory addresses, the State Secretary, Mrs Bianca Debaets (left) highlighted that. while complete replacement of animal usage in biomedical, medical and toxicological research is not yet possible today, timely

investment in alternative methodologies and new *in vitro* technologies is essential now. In this way, methods to reduce and refine can be progressed so that the goal of complete replacement may be achievable in the future, even if only in a limited area.

In addition, the important role of platforms, like IC-3Rs, in disseminating new technologies towards 3R alternatives was elaborated by the event's moderator, Dr Bernward Garthoff, Chair BiO.NRW. One such key task is the creation of a databank that details all alternative methodologies in use and under development. For Belgium, this will represent a valuable, searchable resource, that provides visibility to the alternative



methodologies available in Flanders, Brussels and, if possible, also in the Wallonia region.

The scientific content of the symposium featured cross-disciplinary talks, from key VUB experts. Through this program, the **180 plus attendees** of the symposium heard about advances in alternative methodologies. Recent innovations in stem cell research that utilize human rather than animal source tissue, was discussed. Innovative 3D-culture models, that aim to achieve a better reflection of *in vivo* physiology in *in vitro* systems, were introduced to the audience. Furthermore, interesting talks were given on the potential of the latest gene editing strategies to achieve unprecedented gene targeting both *in vitro* and *in vivo*. Finally, the emergence of *in silico* approaches to limit the reliance on animal models in screening for human safety was discussed extensively.

The symposium program was punctuated by a walking



lunch and closing reception, providing the opportunity for participants to network and discuss their perspectives on the day's themes. The organizers offered participation in the full day's events free of charge, thanks to the generous support of **20 local and international sponsors**. The interaction with key industry sponsors, who are active in alternative methodologies, was facilitated by **8 exhibition stands** at the venue. Following the success of this first event, it is envisaged to broaden future activities under the IC-3Rs platform: more young-researcher and student involvement; wider input from other Belgian universities; and content from various industries where increasing commitments to the 3Rs are also stimulating innovation.