# Optibrium, Imperial College and DND*i* Collaborate in Drug Development Programme for Neglected Diseases

## *Provides MSc students with industry-relevant learning tools and pharma with a new pipeline of candidate compounds*

**CAMBRIDGE, UK, LONDON UK, and GENEVA, Switzerland, 30 May 2017 –** Optibrium™, a developer of software for small molecule design and optimisation today announced it had entered into a collaboration with Imperial College London, the world leading science-based research institution and university, and Drugs for Neglected Diseases *initiative (*DND*i*), a non-profit drug R&D organisation developing new treatments for neglected diseases. Optibrium's StarDrop software will be available to students at Imperial College studying MSci and MRes programmes in Medicinal Chemistry, as part of a collaborative project with DND*i* to design new candidate compounds for Visceral Leishmaniasis. Optibrium will also provide teaching on the application of software for drug discovery to these students. The collaboration is part of DND*i*'s Open Synthesis Network, a global health programme focused on neglected diseases, and also supports a wider initiative to provide students the most relevant courses for a career in the pharmaceutical industry.

Neglected diseases continue to cause significant morbidity and mortality in the developing world; over one billion people are affected by diseases such as leishmaniasis, sleeping sickness, Chagas disease, malaria, tuberculosis and paediatric HIV, for which adequate treatments are not available. Of 850 new therapeutic products approved between 2000 and 2011, only 4% (and only 1% of all approved NCEs) were indicated for neglected diseases, even though these diseases account for 11% of the global disease burden [1].

As part of the collaboration, students will have access to StarDrop's unique drug discovery capabilities enabling them to, for example, characterise properties for known drugs, understand the structure-activity relationships in existing project chemistry and then intuitively design new candidate compounds based on StarDrop's predictive models. Compounds that show potential to become effective therapies for the treatment and prevention of these diseases will be progressed by DND*i*.

Dr Matthew Segall, CEO of Optibrium, commented: "StarDrop is leading edge software that is used across the pharma industry to improve the speed, efficiency, and productivity of the drug discovery process. We are delighted to be working with DND*i* on neglected diseases and through Imperial College, supporting students to gain experience of industry standard tools and software 'know-how'. This will ensure that they understand best practices in data analysis and new compound design for when they enter either commercial or academic research."

Dr David Mountford, Senior Teaching Fellow in Organic and Medicinal Chemistry at Imperial College said "New and novel initiatives such as this train students to an exceptionally high level, in industry relevant skills such that they are more than capable of becoming the drug discovery champions of the future."

Professor Ed Tate, Course Director for the MRes Drug Discovery and Development said: "These projects allow our students to do real innovative science at the cutting edge of drug development. They have access to every part of the process, including designing, synthesising and testing. This is the first open, ongoing project of its type, and could provide an interesting template for future collaboration with the pharmaceutical industry."

Dr Benjamin Perry, Senior Discovery Manager at DND*i*, added: "Optibrium's generous contribution of both discovery workshops and access to their world-class StarDrop software suite brings an extra dimension to DND*i*'s Open Synthesis Network, not only enabling students to get exposure to state of the art design techniques but also helping DND*i* advance our projects through StarDrop's unique data analysis capabilities."

[1] *Pedrique et al. The drug and vaccine landscape for neglected diseases (2000-2011): a systematic assessment The Lancet 2013; 1(6) e371–e379*

For further information on Optibrium and StarDrop, please visit www.optibrium.com/stardrop, or contact info@optibrium.com.

For further information on Imperial College London, please visit www.imperial.ac.uk/chemistry/research, or contact h.dunning@imperial.ac.uk.

For further information on DNDi, please visit www.dndi.org, or contact lpiper@dndi.org

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**About Optibrium Ltd**

Optibrium provides elegant software solutions for small molecule design, optimisation and data analysis. The company's lead product, StarDrop, is a comprehensive suite of integrated software with a highly visual and user-friendly interface. StarDrop enables a seamless flow from the latest data through to predictive modelling and decision-making regarding the next round of synthesis and research, improving the speed, efficiency, and productivity of the discovery process.

Founded in 2009, Optibrium is headquartered in Cambridge, UK with offices in Boston, US. Optibrium continues to develop new products and research novel technologies to improve the efficiency and productivity of the drug discovery process. Optibrium works closely with its broad range of customers and collaborators that include leading global pharma, agrochemical and flavouring companies, biotech and academic groups.

For further information visit www.optibrium.com or join in discussions on improving the productivity of drug discovery at www.optibrium.com/community.


**About Imperial College London**

Imperial College London is one of the world's leading universities. The College's 16,000 students and 8,000 staff are expanding the frontiers of knowledge in science, medicine, engineering and business, and translating their discoveries into benefits for society.

Founded in 1907, Imperial builds on a distinguished past - having pioneered penicillin, holography and fibre optics - to shape the future. Imperial researchers work across disciplines to improve health and wellbeing, understand the natural world, engineer novel solutions and lead the data revolution. This blend of academic excellence and its real-world application feeds into Imperial's exceptional learning environment, where students participate in research to push the limits of their degrees.

Imperial collaborates widely to achieve greater impact. It works with the NHS to improve healthcare in west London, is a leading partner in research and education within the European Union, and is the UK's number one research collaborator with China.

Imperial has nine London campuses, including its White City Campus: a research and innovation centre that is in its initial stages of development in west London. At White City, researchers, businesses and higher education partners will co-locate to create value from ideas on a global scale. www.imperial.ac.uk/


**About DND*i***

A not-for-profit R&D organization, DND*i* works to deliver new treatments for neglected patients living with leishmaniasis, human African trypanosomiasis, Chagas disease, specific filarial infections, paediatric HIV, mycetoma, and hepatitis C. DND*i* is actively engaged in developing new treatments and screening new compounds, notably for Chagas disease and leishmaniasis. www.dndi.org