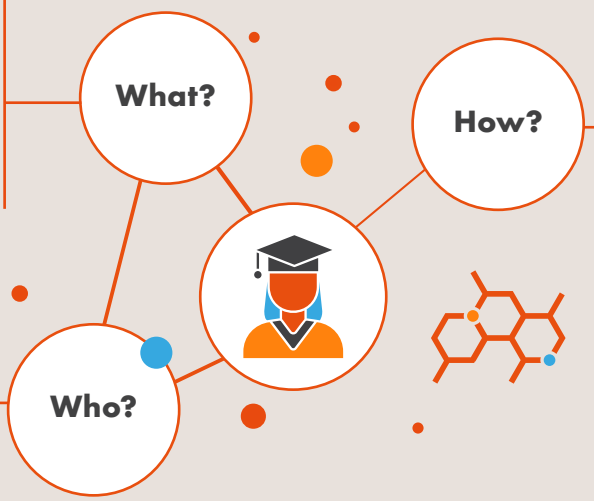
OPEN SYNTHESIS NETWORK

OSN was created by the Drugs for Neglected Diseases initiative (DNDi) to harness the capacity of chemistry teaching labs to help discover new drugs for patients living with neglected diseases.



With a global network of academic partners, OSN contributes to the design and synthesis of new compounds for development into DNDi treatments.

Instead of training on synthetic targets such as aspirin, students can contribute to DNDi's neglected disease research at these research and development stages: hit-to-lead and lead optimization.

OSN includes universities from Asia, Europe, Oceania, and the Americas.

All OSN work will be published in the public domain and remain free of intellectual property

CROWDSOURCING COMPOUND SYNTHESIS

The Open Synthesis Network (OSN) is an innovative project launched by DNDi and partner universities in 2016 to harness the capacity of chemistry teaching labs to help discover new drugs for patients living with neglected diseases.

OSN carries out collaborative, early-stage research with master's and undergraduate students, while furthering their understanding of drug discovery and medicinal chemistry. Students are given real probems from selected DNDi lead optimization programmes, rather than the more traditional synthesis of well-known substances such as aspirin, as is usual in chemistry teaching labs. Students at partner universities are currently working on compounds that target *Leishmania donovani* and *Leishmania infantum*, the parasites that cause visceral leishmaniasis, as well as compounds focused on *Trypanosoma cruzi*, the causative agent of Chagas disease.

Any successful compounds that come from the OSN project will be evaluated further as part of DNDi's discovery pipeline, with the goal of developing oral drugs that are easy to administer and have fewer side effects than existing treatments.

All work generated by OSN will be published in the public domain in real time and remain free of intellectual property (IP). All OSN participants, DNDi included, agree not to take any IP position on any of the data or compounds generated by the projects.

With more than 1,000 compounds already delivered, OSN now comprises more than 30 universities in Brazil, USA, UK, Germany, France, Switzerland, India, Australia, and New Zealand.

For further information, contact Dr Luiza Cruz: lcruz@dndi.org
Learn more: dndi.org/open-synthesis-network