



Press Release

Tübingen hosts master of virtual drug design

Finland's Antti Poso is the new Distinguished Guest Professor

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Director

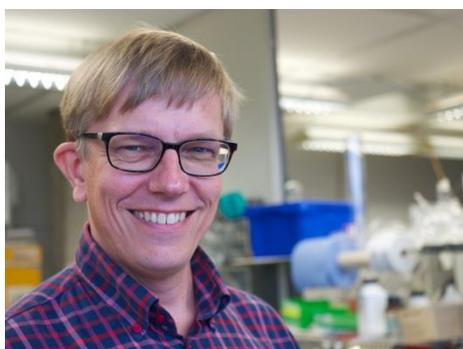
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Professor Antti Poso. Photo: Friedhelm Albrecht/University of Tübingen

The University of Tübingen's latest Distinguished Guest Professor is the Finnish professor of Pharmacy, Antti Poso, of the University of Eastern Finland in Kuopio. The Distinguished Guest Professor program is financed from the University of Tübingen's Excellence Initiative funding.

Professor Poso will be visiting Tübingen for research and consultation over the next three years as part of the Tübingen Center for Academic Drug Discovery & Development (TüCADD) initiative at the Department of Pharmacy and the Faculty of Medicine, where he will contribute his expertise in the field of virtual, computer-assisted methods of drug design. He will also give lectures on it for advanced students.

Antti Poso has been the Professor of Drug Design in Kuopio since 2003. He is also working on a number of cancer research projects at the Institute of Molecular Medicine Finland in Helsinki. Poso has already spent considerable time in Germany. He was a postdoc and Humboldt Fellow at the University of Düsseldorf from 1997 to 1998 and at the University of Hanover in 2011. He has been a welcome guest in Tübingen a number of times since 2012, collaborating on highly successful projects in the field of cancer research and antiinfectives.

Poso works with Professor Lars Zender of Tübingen's Department of Internal Medicine VIII at the University Hospital and is involved in the DFG-sponsored research unit 2314: Targeting Therapeutic Windows in Essential Cellular Processes for Tumor Therapy. His work within TüCADD also sees Professor Poso cooperating with Professor Stefan Laufer from the Institute of Pharmaceutical and Medicinal Chemistry and

Professor Ingo Autenrieth of the Interfaculty Institute of Microbiology and Infection Medicine.

The latest methods of computer-assisted drug design enable researchers to predict the interaction between a target in the body and a potential new drug at the molecular level. Targets for the development of new medications are, for instance, substances and receptors which appear different in cancer cells and in healthy cells. Professor Poso uses 3D models of the targets to search substance databases for one which would dock onto the target and attack the cancer cells. Promising pharmaceuticals are passed on to Poso's partners in Tübingen, who subject them to further laboratory and clinical testing. If a substance passes these tests, it is often sent back to Professor Poso, who seeks to optimize the drug in a further round of theoretical examination.

Poso has been developing virtual drug design methods since 1990; his contribution to the work being carried out in Tübingen also serves to cut back on labor-intensive laboratory and animal testing. "The close cooperation between more theoretical computer-assisted research, biomedical applications – and Medical Chemistry as the bridge connecting them – is particularly fruitful," says Professor Stefan Laufer. "TüCADD provides the ideal framework for this and is certainly the only one of its kind in Germany."

"We are very pleased to host Antti Poso in Tübingen, his research will speed up the development of new cancer therapies," says Lars Zender, M.D, Medical Director of the newly founded Department of Internal Medicine VIII, which comprises a Phase I clinic dedicated to bringing innovative new cancer therapies to patients. "A close interaction between Professor Poso as a drug designer, Professor Laufer as a Medicinal Chemist and our newly founded Phase I clinic will bring Tübingen to the forefront of Academic Drug Discovery and Development."

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