

Horizon 2020 Expression of Interest

Istanbul University Drug Repositioning Network

OUR UNIVERSITY

Founded in 1453, Istanbul University (IU) is among the first and longest-standing institutions in Turkey. Located in 5 Campuses and 7 Research Centers in and around the city, Istanbul University is a public academic institution comprising:

- 20 Faculties
- 1 Conservatory
- 7 Vocational Schools
- 2 Colleges
- 17 Graduate Institutes
- 60 Research Centers

Besides, the university is home to a total of 90.000 Undergraduate, 15.000 Graduate, 3.500 International Students, 5.500 Academic and 6.500 Administrative Staff.

Furthermore, Istanbul University holds two of the most renowned Medical Faculties in the country, namely Istanbul Tıp and Cerrahpasa Tıp, with 5,000 medical students and approximately 1,000 medical academic staff. These two faculties operate 2 grand hospitals and Cardiology, Oncology and Dentistry Institutes comprising a total bed capacity of 3,500-4,000 and 2.5 million outpatients and 100,000 inpatients per annum.

According to the Academic Ranking of Worldwide Universities in 2011, Istanbul University ranked among the first 400 universities making it the sole Turkish University in the first 500. Istanbul University has ongoing protocols with over 50 institutions worldwide spanning from USA to Europe and Asia along with over 500 Erasmus agreements.

In 2006, the Nobel Prize for Literature was awarded to Orhan Pamuk, an Istanbul University graduate of journalism, marking an unrivalled success in the history not only of Turkish universities but also of the country.

ISTANBUL UNIVERSITY DRUG REPOSITIONING NETWORK

Drug repositioning needs a transdisciplinary network to understand the success probability of a molecular entity, both from clinical and business perspectives. Istanbul University Drug Repositioning Network provides the necessary medical, business and engineering perspectives by bringing together skills, experiences and capabilities in clinical trials, genomics, proteomics, bioinformatics, drug toxicology, drug & disease pathway mapping, microarray, advanced imaging, commercialization, business development, pharmaeconomics, computer modelling, mathematical modelling and data mining among many. Once a molecular entity is repositioned, it has a global impact worldwide. Turkey's increasing importance for clinical trials in the Eastern Europe will make this network even more critical and relevant for the EU.

Network Members

IU Istanbul Medical Faculty (ITF) Department of Medical Pharmacology

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IU Genetics Department Institute for Experimental Medical Research (DETAE)

IU ITF Department of Physiology

IU ITF Department of Neurology

IU Institute of Cardiology

IU ITF Department of Rheumatology

Capabilities

- Phase I, II, III, IV clinical trials
- The first and only excellence center for clinical trials in Turkey, Clinical Trials Excellence Center& Drug Research Units
- 4 fully equipped research hospitals with a large patient pool to participate in clinical trials.
- Disease & Drug Pathway Mapping
- Advanced imaging infrastructure including 3 Tesla MR, Positron emission topography,...etc.
- Rational drug use and drug interactions with an advisory committee
- Animal studies infrastructure
- Genomics lab
- Individual experiences in commercialization, business development & pharmaeconomics.

Contact details

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Areas of Interest in H2020 SC1 Work Programme 2014-2015

PHC 2 – 2015: Understanding diseases: systems medicine

PHC 3 - 2015: Understanding common mechanisms of diseases and their relevance in co-morbidities

PHC 12 – 2014/2015: Clinical research for the validation of biomarkers and/or diagnostic medical devices

PHC 13 – 2014: New therapies for chronic non-communicable diseases

PHC 14 – 2015: New therapies for rare diseases

PHC 15 – 2014/2015: Clinical research on regenerative medicine

PHC 22 – 2015: Promoting mental wellbeing in the ageing population

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Specific skills related to the research topic

Clinical trial management
Genomics proteomics infrastructure
Ethics counselling
Advanced imaging
Financial feasibility analysis & licensing
Market access strategy development
Strong local health authority relations
Drug-disease pathway mapping
Experience on drug repositioning

Proposed activities for the specific topic

Istanbul University (IU) has participated in several interdisciplinary/multidisciplinary research projects, one of which was ITAM / ISTKA, a national drug repositioning project with a budget of around 1 million Euro. The university has also research-focused clinicians who are leading early phase development of new biologics. With these funded projects they have proven their know-how on orphan diseases and drug- disease pathway mapping.

The group members have attended many phase (I,II,III,IV) clinical trials. There is a broad range of scientists from many clinical departments who have attended phase trials within the network.

The network intends to join EU projects in which drug repositioning might be a part of the project. The network can also contribute to a purely drug repositioning project with clinical trials conducting and assuring excellence, disease understanding / pathway mapping, advanced imaging infrastructure, genomics background, business feasibility analysis, and moreover great impact on health policy makers and innovative pharma companies.

References

Some of the Ongoing EC projects

Project acronym / starting date	Main objectives	Main activities	Role in the project
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SAFE-t (IMI) 2009	Qualification of new translational safety biomarkers	to qualify biomarkers for implementation into clinical studies during drug research and development, to gain regulatory qualification of safety biomarkers for drug-induced kidney, liver and vascular injury (indicated with abbreviations DIKI, DILI and DIVI).	Yağız Üresin Ethics Consultancy
TUCRIN – ECRIN (FP7) 2012	European Clinical Research Infrastructures Network (ECRIN) is a sustainable, not-for-profit network supporting multinational clinical research projects in Europe TUCRIN is a partner of ECRIN, a European Union Seventh Framework Programme project.	Promoting clinical research in Turkey, Improving the quality of clinical research, Improving the safety of participants, Supporting training of clinical researchers, Coordinating clinical research and providing standardization, Improving public health.	Yağız Üresin Advisory Committee member
JPND BIOMARKAPD June, 2012	Standardization of AD and PD biomarker measurements across Europe	Creating a biobank with samples from well characterised AD and PD patients	Hakan Gürvit: PI Tamer Demiralp: Advisor

Some of the recent publications

Uresin Y, Taylor AA, Kilo C, Tschöpe D, Santonastaso M, Ibram G, Fang H, Satlin A. Efficacy and safety of the direct renin inhibitor aliskiren and ramipril alone or in combination in patients with diabetes and hypertension. J Renin Angiotensin Aldosterone Syst. 2007 Dec;8(4):190-8.

Uresin Y., Sabirli S., Ozunal Z.G., EEG as a possible diagnostic tool for mild cognitive

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impairment in atherosclerosis. Atherosclerosis Supplements.

Volume: 9 Issue: 1 Pages: 155-155 Published: MAY 2008

Kockaya, G.; Demir, M.; Uresin, A. YEconomic effect of clinical Trials for Turkey. Value in Health. Volume: 15 Issue: 7 Pages: A314-A314 Published: Nov 2012

Kizilirmak P, Berktaş M, Uresin Y, Yildiz OB. The efficacy and safety of triple vs dual combination of angiotensin II receptor blocker and calcium channel blocker and diuretic: a systematic review and meta-analysis. J Clin Hypertens (Greenwich). 2013 Mar;15(3):193-200. doi: 10.1111/jch.12040. Epub 2012 Dec 14. PMID:23458592

Other

ITAM/ISTKA drug repositioning project

IMI-SAFE-T (Safer and Faster Evidence-based Translation) is a EU Innovative Medicines Initiatives (IMI) project where the ITF has its contribution via ethics consultancy

TUCRIN (Turkish Clinical Research Infrastructures Network) is a partner of ECRIN, a European Union 7th Framework Programme project.

REPOSE - EU Marie Curie S. - RISE project proposed as coordinator on April 2014

Several clinicaltrials.gov registered trials participated by the network members.