Young Professionals Board

Institute of Bioorganic Chemistry, Uzbekistan Academy of Sciences

A voluntary association of young scientists under 35 years inclusively, the Young Professionals Board functions from the date of foundation of the Institute of Bioorganic Chemistry, Uzbekistan Academy of Sciences. It acts on behalf of young scientists representing their interests and opinions for administration of the Institute and other organizations in and out of the Institute. It keeps under observation that the improvements in the social situation for young scientists to be completely realized. The Young Professional Board holds its meetings for the PhD students and leading researchers to interchange ideas; the subjects of dissertations to be defended, the young scientists' foreign trip reports, the reports on research of well-known scientists working or ever worked at the Institute, as well as the leading scientists' lectures on current problems in bioorganic chemistry to be discussed. The contests for the best research work and publication of young scientists are held jointly with the Academic Board. Monthly meetings facilitate new professional and personal contacts, broadening of outlook and improvement the skill to speak before the large audience. The research works of some young scientists earned awards of various competitions.

a. off-work time and weekends, the young scientists go in for sports, concern themselves with vocalism, and organize visits to theaters and meetings with prominent scientists, poets and writers, as well as trips and excursions to the places of interest in Uzbekistan.

При Институте создан Совет молодых ученых, в состав которого входят научные сотрудники, базовые докторанты, докторанты, свободные соискатели ИБОХ до 40 лет. СМУ - это коллегиальный совещательный общественный орган, призванный способствовать профессиональному росту молодых ученых, их активному участию в фундаментальных и прикладных научных исследованиях, программах и различных фондах. Совет должен содействовать организации научно-исследовательских и инновационных проектов, участию в конференциях, семинарах, организации конкурсов, издании научных и научно-популярных работ.

d. Sherimbetov Sanjar Gulmirzoevich, a senior researcher, Doctor of Biological Sciences is the Chairman, Gayibov Ulugbek Gapparjanovich, PhD, is the vice-chairman, Azimova Luiza Bakhtiyarovna, a junior researcher, is the secretary.
e. are more than 50 young scientists at the Institute, including 4 Doctors of Sciences, 15 Candidate of Sciences and PhD. Among the problems they have been studying for the last years, there are the structures and functions of hormone binding proteins in the cotton growth and development, molecular mechanism underlying the cotton defoliation, methods for generation of affine materials by conjugation of polymers with antibodies, proteins peptides and various substrates necessary for development of technologies of the small-scale chemistry of biologically active compounds, as well as the structures and functions of components of venoms from the Central Asian animals.
f. works are under way on effective pharmaceuticals based on organic amino acids, high molecular weight alcohols and hydrocarbons (their ethers and esters), polymer compositions, carbohydrates, multiple polyphenolic compounds, represented by terpenoids, oxynaphthaldehydes (gossypol and its satellites), flavonoids (flavanols, catechins, anthocyans, leucoanthocyanidines, proanthocyanidins), derivatives of benzo-dihydropyran (tocoferols) and phytoalexins. The comprehensive study is under way on chemical and physical properties of gossypol and its derivatives, peculiarities of isolation and chemical transformations of polysaccharides and their derivatives, molecular and supramolecular structures, as well as on generation of novel effective preparations and medications on their basis to be used in medical practice and agriculture.
g. per the Resolution of the Cabinet of Ministers, the international symposium in bioorganic chemistry with the young scientists to participate is planned to be prepared and conducted.

Scientific ties

y. scientists of the Institute maintain scientific ties with the leading foreign academic institutions in the USA, Germany, Great Britain, Japan, Belarus and the Russian Federation. They participate to the international grants for the programs of CRDF, SCOPES, USD ARS, TWAS and others.

Principle research results include

- Patent No. IAP 20160218 “Medication with the laxative effect based on the local raw materials”. Sagdullaev B.T., Turaboev Sh.M., Atamuratpv F.N., Abrekova N.N., Beknazarova N.S., Makhmudov S.D.
- Research paper. Alieva G.K., Ashurov J.M., Kadirova Sh.A., Ibragimov B.T. & Zakhidov K.A.Crystal structure of trans-bis [2-(1H-benzotriazol-1-yl) acetato-*kO*] bis (ethanolamine-k^2N,O) copper (II). Acta Crystallographica Section E.Research Communications, 2019. E75. P. 233-236. Scopus metrics IF 0.32).
- Operating experimental-industrial regulations for “Rutan’ tablets 42 Uz- 03873/03535693-2872-2018 Turaboev Sh.M., Sagdullaev B.T., Mavlyanov S.M.
- Development of “Hemosponge” preparation as local hemostatic material for capillary an parenchymatous bleeding control (Radjabov O.I.)
- Development of “Biosolvent” a polymer composition with the surface active features providing easy and quick removal of toxic sparingly soluble salts from the soil depth with low volumes of wash waters (Khudoinazarov I.A.)

Research paper. Bahtiyor Muhitdinov, Thomas Heinze, AbbaskhanTuraev, Andreas Koschella, Nodirali Normakhamatov. Homogenous synthesis of sodium cellulose sulfates with regulable low and high degree of substitutions with SO_3/Py in N,N-dimethylacetamide/LiCl. European Polymer Journal (Elsevier), 2019, Vol. 119, pp. 181-188. DOI: https://doi.org/10.1016/j.eurpolymj.2019.07.030. (Mukhitdinov B.I.)