

Pharmaceutical Chemistry

Anastasia Nikolakopoulou

Anastasia N, Pharmaceutical chemistry. J Pharmacol Med Chem. 2021; 5 (3):1.

EDITORIAL

Pharmaceutical (medicinal) chemistry is bothered with the planning (drug design) and synthesis of biologically active molecules. The aim is to achieve new chemical molecules that might alter the invention of latest prescribed drugs or optimize already noted drug structures, thereby to expand the portfolio of chemical medicine. though chemical science plays a vital role, solely knowledgeable pharmaceutical chemists are able to work effectively during an extremely knowledge domain atmosphere and move with scientists in different disciplines, like biology, structural biology, pharmacological medicine, chemistry, organic chemistry, pharmacological medicine, pharmaceutical technology, medication or with consultants from the sector of travel medicine, etc.

The term pharmaceutical (medicinal) chemistry appeared initial within the literature shortly once WW II. Throughout the event of molecular pharmacological medicine, it absolutely was potential to specific the biological activity of any substance by suggests that of quantitative molecular properties (e.g. IC50, EC50, pA2). Since then the scientists have begun victimization the term "drug design" and commenced to develop new medicine consistently. Once the pc technology and programming had been introduced, the likelihood to review the link between the chemical structure and biological activity of a molecule (structure-activity relationships, SAR) during a quantitative sense (quantitative SAR, QSAR) was considerably inflated. Nowadays, these rational strategies in coming up with new medicine are most well-liked, though the observation of likelihood or adverse effects still plays important role within the development of latest medicine.

Medicinal chemistry and pharmaceutical chemistry square measure disciplines at the intersection of chemistry, particularly artificial chemistry, and pharmacological medicine and varied different biological specialties, wherever they're attached style, chemical synthesis and development for market of pharmaceutical agents, or bio-active molecules (drugs). Compounds used as medicines square measure most frequently organic compounds, that square measure typically divided into the broad categories of little organic molecules (e.g., statin drug, fluticasone, clopidogrel) and "biologics" (infliximab, glycoprotein, internal secretion glargine), the latter of that square measure most frequently meditative preparations of proteins (natural and recombinant antibodies, hormones etc.). Inorganic and organometallic compounds also are helpful as medicine (e.g., metallic element and platinum based agents like antipsychotic drug and cisplatin yet as gallium).

In the years to follow, the event of latest medicine has been remarkably accelerated by radioactive drug and substance labeling that successively permits scientists to spot new therapeutic targets. The introduction of biology revolutionized the pharmacological medicine options (understanding of the fate of the drug and its metabolites within the body) and pharmacodynamics (understanding of the molecular mechanisms of drugs).

The advances in analytical analysis of latest molecules, development of laptop technologies and their applications in molecular modeling approaches have all considerably expanded the scope and use of pharmaceutical chemistry, and ultimately have brought the likelihood to supply a broader vary of latest medicine with a replacement therapeutic potential. At the start of the twenty first century, pharmaceutical (medicinal) chemistry has developed new molecules with ever-increasing structural diversity. Except for the little artificial ligands and natural product, pharmaceutical chemists specialize in the event of changed peptides and proteins, biological agents (e.g. organism antibodies), multifunctional molecular complexes and artificial vaccines. This speedy development comes hand in hand with the advances in chemical biology, molecular modeling, and analytical strategies usually altogether medical fields. As a result, pharmaceutical chemistry has become a decisive and progressively vital a part of fashionable medical, pharmaceutical and agrochemical analysis.

The Section of Clinical Pharmacy (SCP) has been to blame for making certain continuity of development of clinical pharmacy within the European nation since 1977. supports the event of clinical pharmacy services in each patient and inmate setting, primarily focuses on the event of academic and scientific aspects of clinical pharmacy and transferring skilled clinical pharmacy information to different pharmaceutical disciplines, raises awareness on clinical pharmacy each in skilled and general public atmosphere.

SCF among the CzPS tries to deepen information regarding clinical pharmacy and enhance cooperation with different pharmaceutical sciences, operating towards the unity among pharmaceutical fields. The SCP cooperates nationwide and internationally with: other skilled societies of clinical pharmacy (ESCP, Czech skilled Society of Clinical Pharmacy etc.), other skilled societies of various specializations (Czech Society of general medicine, Czech Society of General apply etc.), other organizations (Czech Pharmaceutical Council, State Institute for Drug management, Joint enfranchisement Committee, ISPE, ISO P etc.).

Division of Pharmaceutical Chemistry and Technology, Faculty of Pharmacy, University of Helsinki, Finland

Correspondence: Dr. Anastasia Nikolakopoulou, Division of Pharmaceutical Chemistry and Technology, Faculty of Pharmacy, University of Helsinki, Finland, e-mail: nikolakopoulou.tasia@gmail.com

Received: May 11, 2021, Accepted: May 20, 2021, Published: May 29, 2021



This open-access article is distributed under the terms of the Creative Commons Attribution Non-Commercial License (CC BY-NC) (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits reuse, distribution and reproduction of the article, provided that the original work is properly cited and the reuse is restricted to noncommercial purposes. For commercial reuse, contact reprints@pulsus.com