

Special Issue on
**Natural Products: A Great Chemical Space for the
Fragment-Based Drug Discovery Strategy**

CALL FOR PAPERS

Recognized herbs in Chinese Traditional Medicine practice have been used for centuries to fight against a broad spectrum of human diseases. The key bioactive ingredients have been isolated and identified as drug substances, such as morphine, quinine, and reserpine, to name a few. The secondary metabolites of microbial origin further supplement the herbs-based drug substances, with the great discovery of antibiotics of penicillin. Marine natural products have also expanded the collection of natural product drug substances. In addition, medicinal chemists have succeeded in generating semisynthetic analogous with improved drug-like properties, compared to their original natural products. Therefore, natural products remain as an essential source of drug substances and inspire the modern drug discovery.

In comparison with the traditional high throughput screening (HTS), fragment-based drug discovery (FBDD) has gained its momentum recently in generating of initial starting points in a time-efficient and cost-effective way. Though the fragment library is typically in the range of a few thousands, it can cover a greater chemical space. Nevertheless, classical fragment library is deficient of nature products derived fragments, due to their enhanced molecular complexity and/or synthetic challenge. This may highlight the necessity of the proposed special issue on natural products as new chemical space in FBDD.

We would invite authors to contribute with their original research and review articles for this proposal. This special issue could afford to the scientific community new bases toward the exploration of new horizons in natural products based drug discovery in the context of FBDD. Finally, we welcome terms like hit, lead, pharmacophore, target, interaction drug-target, small molecule, and organic synthesis, among others, to this special issue, with the aim of enriching the scientific literature with original research about the fight against a wide spectrum of pathologies and the potential solutions.

Potential topics include but are not limited to the following:

- ▶ Natural products as raw materials in organic synthesis
- ▶ Bioactivity of natural and semisynthetic small molecules
- ▶ Application of X-ray and NMR tools in FBDD
- ▶ Bioinformatics and/or molecular modeling in FBDD
- ▶ Green synthesis of new potential leads based on natural products fragments

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/jchem/organic.chemistry/gcsf/>.

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Diego R. Merchan-Arenas, Universidad
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Colombia
diego.merchan@docentes.umb.edu.co

Guest Editors

Hongtao Zhao, Medivir AB, Stockholm,
Sweden
htzhao@lephar.com

Bin Yu, Zhengzhou University,
Zhengzhou, China
zzuyubin@hotmail.com

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