

## Tentative Outline

### Special Thematic Issue for Current Topics in Medicinal Chemistry

Telomere Based Approach for Cancer Therapy

*Guest Editor: Di ê go Madureira de Oliveira*

#### Aims & Scope:

Since cell proliferation is a central process in carcinogenesis, most of the classical anti-tumor therapeutic approaches include antiproliferative agents. However, strong side effects and resistance are commonly reported as responsible for failure of cancer treatment. Another crucial process in the pathogenesis of cancer is the cellular immortalization (acquisition of ability to undergo to unlimited replication cycles), which occurs by the re-expression of the enzyme telomerase in over 85% of human tumors. Thus, anti-telomerase therapy is a potential revolutionary therapeutic strategy that is currently cited in many important studies. Beyond telomerase, many research groups have been showing the relevance of telomere related process for cancer development or response to therapy and pointing many new potential pharmacological targets. Also, there are several recent papers describing new compounds with telomerase inhibition activity and promising action on many tumor cell lines. Thus, the community of those interested in telomere based approach for cancer therapy has grown significantly, so that a general update on the theme would be welcome.

**Keywords:** Telomeres, Telomerase, Immortalization, Anti-cancer drugs

#### Subtopics:

The subtopics to be covered within this issue are listed below:

- Clinical trials with telomerase inhibitors
- Potential telomere-related pharmacological targets
- Alternative lengthening of telomeres in cancer
- Noncanonical functions of telomerase
- Telomere-related markers for cancer
- Prototypes of new drugs for telomere based therapy

#### Schedule:

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|--|--------------------|
| ■ Manuscript submission deadline:                  | September 10, 2019 |
| ■ Peer review due:                                 | November 12, 2019  |
| ■ Revision due:                                    | November 28, 2019  |
| ■ Announcement of acceptance by the guest editors: | December 2nd 2019  |
| ■ Final manuscripts due:                           | December 12, 2019  |

#### Contacts:

Guest Editor: Di ê go Madureira de Oliveira, Ph.D.

Affiliation: Department of Biological Basis of Health Sciences, University of Brasilia – Federal District - Brazil

Email: [dmadureira@unb.br](mailto:dmadureira@unb.br), [diego.madureira@pq.cnpq.br](mailto:diego.madureira@pq.cnpq.br)