

Welcome to the Journal of Theoretical & Computational Science: Open Access

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In this age of Human Mars landing, sophisticate technology and human lives has been improved much due to the advancement of the technology enabled by science and technology revolution. Growing number of emerging fields provide complexity to the human brain to adopt and cope up with these emerging trends. In this regard, computational science plays major role in reducing the complexity. Computational Science is a rapidly growing multi- and interdisciplinary field that apply theoretical concepts by using advanced computing to understand, analyse and solve complex problems in physics, chemistry and biology. It significantly reduces time and cost of the complement area- the experiment.

Ernest Rutherford, - the father of nuclear physics - stated that: *"Physics is the only real science. The rest are just stamp collecting."* Ironically he was awarded the Nobel Prize (1908) in chemistry. What would Rutherford say about "Computational and Theoretical Science", that is not even "real chemistry"?

The humble prediction of the Editors of this journal is that numerous theoretical and computational scientists will be honored with prestigious awards - probably shared with traditional "wet laboratory" researchers - in the near future.

Theoretical works are known to be essential to the development of basic sciences. Still, this scientific method never achieved a serious status and publicity in the professional literature. The reason is that historically theories having been based predominantly on *thinking and personal ingenuity* and little or not at all on real experimentation. Consequently some theories were wrong while someother theoretical physicists' theories were proven to be revolutionary. Classical examples are the works of theoretical physicists Albert Einstein, Galileo Galilee, and Claudius Ptolemy.

We feel some jealousy for mathematicians and theoretical physicists because they could achieve significant discoveries with the help of only paper and pen (in addition of personal talents). Biology and chemistry are extremely labor-intensive and time-consuming sciences and the actors have to spend large part of their constructive time and spiritual resources to secure these resources.

However the working conditions changed for many of us during the last 1-2 decades due to the development and "humanization" of computer technology and the very wise decisions of policy-makers to create databases of raw scientific data. These huge databases, many of them freely accessible on the internet, contain the accurate description of some aspects of Life and Nature but in unprocessed forms. It is always the human intelligence that turns raw *data* into *information* and further into *knowledge*. Consequently the development of computers and databases provided to many scientists the same competitive advantage than any other large and well-financed laboratories have. By other word - and describing the recent development even more futuristically - it is possible today for individual scientists to contribute to the development of sciences - and build a nice scientific carrier - "only with intelligence" and practically without large grants. *It is a very fair development, be aware of it, use it, benefit of it!*

In the current science age, theories are transforming into algorithms and that automation by use of computers and programming. Eventually

computational science and *informational* technology are generating trillions of *data* every second; however collection and processing is a bottleneck - which gives a way to emerge a new field called "Big Data". With the advent of the computer based screening and chemo informatics modern drug discovery sees significant reduction in time & cost of their R&D spending. Further, nanotechnology is much advanced with the use of computer simulations. Predictive toxicology of the chemicals used in the pharmaceutical and everyday use of multipurpose industrial chemicals has seen much advancement with the application of computational simulations.

Another very fortunate change for the majority of scientists is the growing popularity of the "paperless" publications and the "free access" publishing ideology. Authors of old generation certainly remember the endless hours that we had to spend in the library with rather blind browsing of printed volumes, copying them or sending reprint requests for each other by snail post. Even the editors and publishers seem to benefit of the free access publication technology, because it provides them larger freedom to choose between submitted articles.

With a given emerging importance in the inter- and multidisciplinary cross collaboration and the resulting *data* accumulation, OMICS Publishing Group started open access journal, where research articles can be published on diverse research field such as chemistry, biology, physics, engineering and cross collaboration field, described in Editorial Policy [1]. We - the production team of the new OMICS journal, the "Journal of Theoretical and Computational Science" - wish to celebrate and serve the scientific intelligence and talents by providing a new vehicle to the general public to reach new scientific highs and the freedom of thinking even "outside the box". We hope this cross disciplinary journal will not only make good impact to the researchers but also useful to the scientific community who don't have access to many of the specialized journal in this field.

Again Warm Welcome to the Journal!

References

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