

Third Report of the Advisors of the RIDC Redoxoma

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Introduction

This report evaluates the current status of the CEPID-Redoxoma Project, which was generated by Profs. Fiskum and Radi following a meeting at the University of São Paulo, held during February 11-12, 2020. Prof. Fiskum was present for all platform and poster presentations, interviews and discussions. Prof. Radi participated by videoconferencing due to severe weather and flooding that precluded his on-site participation. This is the third site-visit for this Project, thus allowing the evaluators to compare progress over several years.

Both evaluators were highly impressed by the quality and quantity of the products generated by the Project in all dimensions, including research, training, education and technology transfer. It was clear from the presentations that the Project has reached maturity and that it has developed a synergistic “road map” to guide current and future progress among many research projects, educational missions, and technology transfer. The quality in all aspects listed below is outstanding. From the scientific and administrative leadership to the students and technical staff, the evaluators could feel the high level of enthusiasm and pride to be members of the Redoxoma organization.

Scientifically, Redoxoma is one of only a few research centers in the world that is focused on redox biology. The topics represented within Redoxoma range from very precise analytical chemistry studies all the way to clinically translational applications. The evaluators were very satisfied to see how well this organization has developed, and how suggestions raised during previous visits have been successfully implemented, e.g. better linkage between basic research and technology transfer). A particular high-point during the visit was interactions between the evaluators and the large number of graduate students who are a tight knit group of vividly interacting young scientists.

The oral presentations by senior and mid-career investigators were very well organized around the current Aims of Redoxoma. Both evaluators were very impressed by both the presentations and particularly the outstanding question and answer periods. Prof. Fiskum attended the poster session that was presented by most of the students and post-doctoral fellows. As stated earlier, the enthusiasm exhibited by these trainees was outstanding. It

was quite clear that the educational mission, carried out both in the labs and in the community, had grown successfully.

Organizationally, the Project is moving along smoothly under the solid leadership of Prof. Ohara Augusto and her direct senior collaborators and directors of different parts of the Project. The evaluators found that the financial resources well also wisely and well distributed among the different areas of the Project and that research, training, educational and technology-transfer had grown during the last few years. This outstanding growth occurred despite a drastic 40% reduction in the Redoxoma budget during the previous year. The evaluators feel strongly that these cut-backs should be at least reversed as soon as possible to insure further growth and progress.

In summary, we provide with our most positive and enthusiastic evaluation and hope that this Project will be very well-supported for years to come, as it has reach maturity and will continue you yield excellent results.

The below is a list of measurable achievements by the Project.

ACHIEVEMENTS, CITATIONS, AND GRANTS

- Publications
 - There has been a steady increase in Google Scholar recorded citations since 2015 with a total of over 7600 citations and a remarkably high h-index of 42.
 - Over 520 peer-reviewed manuscripts have been published
 - Abstracts of presentations at scientific conferences exceed 250.
 - Six books have been edited and 60 book chapters have been published
 - *Summary: Outstanding publication record with steady growth and high impact. Possibly the most cited group of redox biology investigators in the world.*
- Technical Products
 - 15 patents
 - 11 technology transfers
 - *Summary: In comparison with the publication record, the number of technical products is mediocre and should be an area of focus in 2020 and beyond.*
- Training Scientists
 - During the last 5 yr over 83 students have received their PhD degrees and over 50 students have received their Master's degrees.

- Over 80 undergraduate students have been trained
- Over 40 postdocs have been mentored
- Current trainees include 25 Masters students, 41 PhD students, 26 postdocs, and 31 undergrads.
 - *Summary: Research training in the field of redox biology is a major strength of Redoxoma. Graduating an average of over 15 PhD students per year is a key accomplishment. The quality of this training and the dedication of the students at all levels were highly evident at the poster presentations they presented during the meetings.*

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