

Rheology, nano/microFluidics and bioFouling in the Oceans (RheFFO) Working Group

Newsletter #2 (18 November, 2014)

This is our second *RheFFO* Newsletter. It's only four and a half months since #1, but a lot has happened. I think that this newsletter will show that, SCOR endorsement or not, our working group is already up and working!

New member Wei-Chun CHIN



We welcome new *RheFFO* member, Dr Wei Chun CHIN. He is associate professor at the University of California Merced, USA, having worked for many years with Dr Pedro Verdugo, himself a pioneer on mucus studies in both the human body and in the ocean. Wei Chun's specialisations complement *RheFFO* very well, and include:

- Intracellular Ca^{2+} signalling in acute pancreatitis, cystic fibrosis, asthma and chronic obstructive pulmonary disease;
- Spontaneous polymer gel assembly in aqueous environments;

- Intracellular and intercellular signalling in phytoplankton cells.
- Applications of microfabrication; techniques to study microenvironment effects on stem cell differentiation.

More details [here](#).

Recommendations

We are fortunate to have been recommended for support by:

1. Raphael Kudela, president of the IOC-SCOR Research Programme on the Global Ecology and Oceanography of Harmful Algal Blooms (GEOHAB), [here](#); and by
2. Beatriz Reguera, president of the International Society for the Study of Harmful Algae (ISSHA), [here](#).

Our sincere thanks to GEOHAB and ISSHA!

***RheFFO* not endorsed by SCOR**

Submission to SCOR of proposals for endorsement of new WGs had to be made by April 2014. We were helped by the SCOR secretariat.

Our Endorsement proposal passed the first hurdle of relevance and format, and was posted on the [SCOR Annual General Meeting \(AGM\)](#) site and in the [SCOR Newsletter #27 \(June 2014\)](#).

SCOR proposals were then sent for detailed evaluation to the committees of SCOR member countries and SCOR constituent bodies. These committees then returned their evaluations to the SCOR secretariat for communication to the

Edited privately by Ian Jenkinson ian.jenkinson1@gmail.com ; ianjenkinson@qdio.ac.cn

Unlimited diffusion allowed free of charge. Re-use of any information should cite this newsletter, or any primary copyright source. Downloadable at:

<http://acro.pagespro-orange.fr/SCOR/140711-01Newsletter-NoApp.pdf>

SCOR General Assembly (GA), held in Bremen, Germany on 15-17 September, where the final decision of which proposed WGs to fund was taken.

Eight proposals were made, and three were endorsed. (See [SCOR Newsletter #28, Nov 2014](#)). *RheFFO* was not amongst them.

I attended the SCOR GA. Although I had to leave them room when the *RheFFO* proposal was being discussed, delegates gave me a lot of informal advice afterwards, and encouragement that we try again.

Stop-press 18 Nov 2014: The formal comments from SCOR have arrived. Read the letter [here](#).

Participation in SCOR WG 141 SML workshop

SCOR WG 141 held a workshop on the sea surface microlayer (SML) in the Ocean University of China, Qingdao, China. Professor YANG Gui-Peng, who very kindly invited me to participate, hosted it. As well as the presentations and discussions, I participated in capacity building (CB) sessions, particularly on sampling the SML. The students attending these sessions later presented us their results, particularly about enrichment factors in the SML compared to underlying water.

The interests of WG 141 SML cut across those of *RheFFO*, particularly in the effect of exopolymeric substances (EPS) is modulating ocean-surface physical, chemical and biological processes and the ocean-surface, as well as in changing the plankton/neuston community. WG 141 has produced a guide to study of the SML (Cunliffe & Wurl, 2014), [here](#).

I think this has been good experience for organising WG workshops in future.

International Conference on Harmful Algae

I have just attended the [16th International Conference on Harmful Algae](#), held on 27-31 October in Wellington, New Zealand. I was registered to give a talk and I took the liberty of including all the members of *RheFFO* as authors (ppt [here](#)).

Need for your action. We are supposed to submit a 4-page paper for the conference proceedings. Could you please confirm to me if you would rather that your name is **not** included as a co-author. I will circulate the manuscript to all authors for approval/improvement before final submission. This manuscript will be peer-reviewed, but will not count as an SCI publication.

RheFFO member Elisa Berdalet gave a presentation entitled, “Parallel monitoring of *Ostreopsis* cf. *ovata* blooms and human respiratory irritations in the NW Mediterranean”. In the last years, this toxic and harmful microalgal dinoflagellate has spread widely in the Mediterranean. It attaches to rocks, but also rises into the plankton, and produces toxins that affect bathers and coastal residents, sometimes putting them in hospital. Elisa showed lovely movies of the webs of elastic polymeric fibrils that they use to attach to the rocks and collectively trap their prey.

Upcoming discussions for future collaborations



On 21 November 2014, [Dr Sophie Leterme](#) of Flinders University, Adelaide, Australia will visit the Chinese Academy of Sciences Institute of Oceanology (IOCAS), Qingdao, P.R. China, for discussions on future collaborations. Her visit will be hosted by Professor SUN Song, Director of IOCAS and by Dr Ian Jenkinson, and specially funded by the Australia-China Young Scientists Exchange Programme.

We hope that the discussions will lead to collaborations in fields covered by *RheFFO*, as well as in marine ecology more generally. Sophie has already co-authored numerous publications with two *RheFFO* members, Jim Mitchell and Laurent Seuront.

ASLO Aquatic Sciences Meeting

The Association for Sciences of Limnology and Oceanography (ASLO) will hold their [Aquatic Sciences Meeting](#) on 22-27 February 2015 in Granada, Spain.

On behalf of the members of *RheFFO*, I have submitted an abstract for presentation, and it is now accepted. The conference organisers have yet to decide whether it will be an oral presentation or a poster. Once again, could you please let me know if you have any comments, or if you do not want your name associated with it. There are no published proceedings of ASLO meetings.

Annual European Rheology Conference

The Groupe Français de Rhéologie will host the [Annual European Rheology Conference](#) in Nantes, France on 14-17 April 2015. There are plans to make a *RheFFO* presentation. Deadline for submission of abstracts is 15 December 2014. Please send me your comments and ideas!

The RheFFO Newsletter

The RheFFO Newsletter is your newsletter for communication between members. Please send me your ideas for inclusions in it, ideas to make it better, or ideas to do things differently.