



## MINUTES

### IUPAC Division VI Chemistry and the Environment Virtual Conference Call Monday, March 22 2021, 3:00 – 5:00 pm GMT

#### **Present (16 in total)**

1. Hemda Garelick - UK– Division President
2. Roberto Terzano - Italy - Division Vice President
3. Annemieke Farenhorst – Canada – Division Secretary
4. Laura McConnell – USA - Emeritus Member
5. Nadia Kandile – Egypt – Associate Member
6. Irina Perminova- Russia - Associate Member
7. Bipul Behari Saha – India – Associate Member
8. Doo Soo Chung – South Korea - Titular Member
9. Petr Fedotov - Russia - Titular Member
10. Diane Purchase – UK - Titular Member
11. Fani Sakellariadou – Greece - Titular Member and Division Project Coordinator
12. Vladimir Beskoski – Serbia - National Representative
13. Bülent Mertoglu- Istanbul - National Representative
14. Oluseun Popoola – Nigeria - National Representative
15. Yehuda Shevah - Israel - National Representative
16. Weiping Wu – UK – Project Lead

**Regrets:** Rai Kookana, Tiina Sikanen, John B. Unsworth,

**In Lieu of Regrets:** Bradley Millar, Weiguo Song (Titular Members), Yong-Chien Ling, Baoshan Xing (Associate Members); Michal Galambos, Joon Ching Juan, Christina de Matos, Monthip Sriratana (National Representatives)

#### **1. Welcome and Introductions**

Hemda Garelick welcomed everyone and members present in the Virtual Call introduced themselves. There was a good participation of Associate, Titular and National Representatives on the Call. As well, participants on the call were located in thirteen different countries across the Globe!

#### **2. Approval of the Minutes: Division VI Meeting September 2020 (2.0 Div VI Sep 2020 - Minutes – Circulated.pdf)**

The Minutes were approved as circulated. Various members spoke about the action items that were in these Minutes, and the progress they have made towards completing these actions.

#### **3. Election Process Update**

Laura McConnell spoke on behalf of Rai Kookana, Chair of the Nominating committee. The Division will need to elect its next Division VI Vice-President and three nominations have been forwarded to the IUPAC Secretariat. These nominations are (in alphabetical order by family name): Doo Soo Chung, Annemieke Farenhorst, and Fani Sakellariadou. If Annemieke Farenhorst is elected as the Division VI Vice-President, there will need to be a subsequent nomination process to elect a new Division VI Secretary. In addition, there will be an election process as appropriate, for appointing Associate Members, Titular Members and National Members.

#### **4. IUPAC2021 Montreal: Symposia in Sustainability**

##### **4.1. Division VI sessions**

Division VI is hosting four sessions at IUPAC2021. An update was provided for three of the four sessions, as per Division VI members present in the call. It was noted that each of these three sessions have secured an invited speaker, as well as received a number of submissions; in one case as much as 18 submissions. One session also secured a high-profile keynote speaker.

Importantly, the deadline for submissions in any session has been postponed to April 1, 2021. (Please also see Agenda Item 4.2. below).

A discussion also took place about how to connect to organizers for the IUPAC World Chemistry Congress in 2023 which will take place in the Netherlands. A strategy would need to be developed of how the Division VI can play a role in contributing to the conference program, for example in organizing Themes and/or Symposia therein.

Furthermore, the Division VI members on the Virtual Call agreed that Division should award an *Environmental Poster Prize*, as done so for some time now at previous Congresses. Diane Purchase informed that Bradley Millar has approached the conference organizers to make an inquiry about such possibility. Furthermore, Diane Purchase agreed to formalize a Division VI project that could secure the availability of funding for such Environmental Poster Prize.

##### **4.2. An Open Discussion**

The question was whether there are concerns about some Division VI members not having sufficient funds to register for IUPAC2021 on or before July 12, 2021 for which the registration fee for IUPAC Affiliates, Members, or Company Associates is CAN\$199.

It was decided that Division VI members, who have their abstracts accepted by any of the four sessions hosted by Division VI at IUPAC2021 by April 1, 2021, and have no option to pay for their own registration, should send an email to the IUPAC Division VI Secretary ([Annemieke.farenhorst@umanitoba.ca](mailto:Annemieke.farenhorst@umanitoba.ca)).

#### **5. Division Projects**

##### **5.1. Current Projects (see attached file: 5.1 projects status March 2021.docx)**

Fani Sakellariadou provided Division VI members with a detailed report on the status of current projects. This included 14 projects in progress of which 4 have asked for an extension and 1 still needs to provide an update.

## **5.2. Revision of the Gold Book (see attached 5.2 PAC Recommendations 2007-2020.xlsx and 5.2 PAC Sources in Gold Book.xlsx)**

Hemda Garelick indicated that discussions are taking place to update the "Gold Book" (IUPAC Compendium of Chemical Terminology). Of particular interest might be for example: "Terminology in soil sampling"; "Glossary of terms relating to pesticides"; "Biological monitoring for exposure to volatile organic compounds"; "Glossary of terms used in ecotoxicology". Division members should send an email to Hemda if they are interested.

## **5.3. Potential New Projects Emerging (see attached file: 5.3 projects under development.docx)**

Fani Sakellariadou informed Division members on new projects emerging of which one is entitled "PPE Disposal or Waste for year 2050" and requesting funding from IUPAC Divisions IV, V, VI and VII. Requested from Division VI is \$5,000 and Fani will circulate the proposal and ask Division members to vote.

The other proposals under development are "International Equipment Sharing Networks" and "Green Chemistry in Sub-Saharan Africa".

## **5.4. Call for New Projects**

No other specific projects were proposed but it was noted that the Advisory Committee on Crop Protection Chemistry will meet soon and potential project topic might arise from that meeting.

## **5.5. Current Project Evaluation Process (see attached files: 5.5 previous procedure for new projects evaluation.docx and 5.5 updated protocol for project evaluation.docx)**

There was a brief discussion about what mechanism must be followed for the approval of new projects.

It was decided that any new project led by Division VI members, requires the vote of confidence of Division VI members.

It was also decided that, regardless of who is leading the new project, any project that is requesting Division VI funding, requires the vote of confidence of Division VI members.

Furthermore, it was recognized that there will be new projects that do not involve Division VI funding, but are potentially of interest to Division VI members. When a Division VI member is made aware of such project, it is desired that the project proposal is shared with other Division VI members, for example by email. However, it is also understood that the lead of the project proposal must give written permission so that the proposal can be shared.

## **5.6. Additional Measures to Show the Impact of Division VI projects (see attached file: 5.6 evaluation of the impact of Div. projects.docx)**

Hemda Garelick requested the Division VI members to send her a list of their recent outputs (reports and publications) as they relate to Division activities and developments. Hemda will include these outputs in the *Division VI President's report to the Bureau (due end of March)*.

The discussions of additional measures to show the impact of Division VI projects was moved to be discussed at a future meeting.

**Action:**

- Hermda Garelick to remind Division VI members via email to send their recent outputs.
- Annemieke Farenhorst to repeat this agenda in a future meeting.

**6. Reminder: Division VI Member Profiles on the IUPAC websites (see attached file: 6.0 IUPAC-Web-Login-and-Authentication-for-IUPAC-Member\_2021.pdf)**

Roberto Terzano reminded Division VI members that it is a good idea to make their Division VI Member Profiles public, if they feel comfortable doing so. When a profile is private, it becomes more difficult to find an email address to contact the Division member. The document prepared by Roberto provides for helpful tips of how to make a profile public so please use these instructions.

**7. Advisory Committee, Subcommittee, and Interdivisional Committee Activities (see attached files: Report Advisory Committee on Crop Protection Chemistry.pdf; Report Subcommittee on Chemical and Biophysical Processes in the Environment.pdf; CHEMRWAN Report.pdf; COCI\_Report.pdf; ICGCSD Report.pdf).**

A substantial number of Division VI members are leading or involved in advisory committees, subcommittees and interdivisional committees within IUPAC. This includes: The Advisory Committee on Crop Protection Chemistry (Laura McConnell), the Subcommittee on Chemical and Biophysical Processes in the Environment (Diane Purchase), CHEMRWAN (Nadia Kandile), COCI (Bipul Saha), CCE (Doo Soo Chung), ICGCSD (Nadia Kandile), Interdivisional Committee on Terminology, Nomenclature and Symbols (Petr Fedotov), and Pure and Applied Chemistry Editorial Advisory Board (Yehuda Shevah).

A number of these representatives provided a variety of reports before and after the meeting, and these reports are attached with the Minutes.

Bipul Saha, representative of COCI, highlighted that numerous projects have been accomplished by COCI in India, including webinars. Bipul Saha also mentioned that if Division VI members are interested in learning more about such project activities in India, or want to participate, Division VI should contact him. This includes a current project that involved chemistry teachers in India.

Nadia Kandile highlighted CHEMRWAN and also reported on UN SDP goals as it related to Green Chemistry in Sub-Saharan Africa, as well as other green chemistry projects.

There was a brief discussion about impact factors as it relates to Pure and Applied Chemistry. Some concerns were expressed by Irina Perminova that the impact factor might be less in the recent year, then it was historically. Petr Fedotov and Hermda Garelick agreed to further look into this.

**Action item:**

- Hermda Garelick and Petr Fedotov to look into impact factors, for example as it applies to Pure and Applied Chemistry.

Laura McConnell reported on the new CropChem News that is posted on the Division VI website. Members gave thanks to Roberto Terzano for updating the website.

Diane Purchase mentioned that Bradley Millar is still looking for Judges for the poster competition at the upcoming virtual IUPAC word chemistry congress in August 2021

Laura McConnell pointed out that LinkedIn is really a good way for Division VI members to promote our projects and articles. There was the suggestion for Division VI members to join LinkedIn, if not done so already. Weiping Wu pointed out that he has posted new publications on his LinkedIn, resulting that such articles were quickly noted by a few thousand scientists. There was a discussion that some members wanted to learn more about LinkedIn so they can be more effective in promoting their projects and articles on this platform.

In addition, there was a motion to officially appoint Laura McConnell as the Chair to the Advisory Committee on Crop Protection Chemistry as follows:

**Motion: As a Divisional committee, we nominate Laura McConnell to serve as the Chair of the Advisory Committee on Crop Protection Chemistry.**

**Carried**

Action Items:

1. Laura McConnell to review the spreadsheet and share it with the members of the Advisory Committee on Crop Protection Chemistry with the aim to ensure that the spreadsheet accurately reflects the membership on this subcommittee, including membership contact information. Subsequently, the website of the Advisory Committee on Crop Protection Chemistry can be updated.
2. Laura McConnell to also share the spreadsheet with Bradley Miller so he can share it with the Subcommittee on Chemical and Biophysical Processes in the Environment to ensure that the spreadsheet accurately reflects the membership on this subcommittee, including membership contact information. Subsequently, the website of the Subcommittee on Chemical and Biophysical Processes in the Environment can be updated.
3. Roberto Terzano to show the link to Emeritus Fellows on the Division VI main page and/or subcommittee pages.
4. Roberto Terzano to allow for some of such publications to be listed on the subcommittee pages. As well, to create a link on the main page of the Division VI website to direct internet users to the subcommittee pages.
5. Laura McConnell and Weiping Wu to work together to provide guidelines to Division VI members on how to effectively utilize LinkedIn as a platform, including how to post articles

## **7. Division VI Budget**

Every division has available \$2,000 for operational budget. We need to propose projects as \$35,000 funds are available.

Hemda Garelick made reference to a project led by Mei-Hung Chiu from Taiwan on a global approach to addressing the gender gap in natural sciences. Oluseun Popoola indicated that Nigeria is also very active in initiatives directed to bridging the gender gap. Annemieke Farenhorst expressed interest in learning more about these initiatives as she has research projects in this area, with collaborators from Canada, Sweden and Germany, and some publications.

*Action Item:*

*1. Hemda Garelick to contact Mei-Hung Chiu to seek information about the status of the project that is addressing the gender gap and see if there are possibilities for future collaborations with Division VI members such as Oluseun Popoola in Nigeria, Annemieke Farenhorst in Canada and others.*

## **8. Sub-committee Reports**

### **8.1. Advisory Committee on Crop Protection Chemistry**

Laura McConnell informed the Division VI members that the Advisory Committee on Crop Protection Chemistry (virtually) met in July 2020.

One plan that arose from the Advisory Meeting is for the subcommittee to proceed with the development of a “Good News on Crop Protection” newsletter, which has been championed so far by Zisis Vryzas from Greece and Gijs Kleter from the Netherlands.

Some ideas for new projects were discussed during the Advisory Meeting and Laura is expecting that some of these ideas might be developed into new proposals to be refined when the Advisory Committee meets again.

*Action Item:*

*1. Laura McConnell to solicit feedback from Division VI members on the “Good News on Crop Protection” newsletter*

### **8.2. Subcommittee on Chemical and Biophysical Processes in the Environment**

The Subcommittee on Chemical and Biophysical Processes in the Environment met in September 2020. Diane Purchase indicated that the Subcommittee also discussed options for establishing a newsletter. However, for these initial discussions to flourish, the subcommittee needs champions to step forward.

Diane Purchase indicated that the Subcommittee has a new book coming out. As well, there are some new project ideas including in the areas of: 1) COVID-wastes environmental impact and disposal; 2) The sorption of chemicals by microplastics; and 3) Circular Economies/Smart Cities: urban mining.

A discussion followed in that there is already an on-going project on microplastics that is led by Weiping Wu and includes other Division VI members.

*Action Item:*

1. *Weiping Wu to provide some information to whether a discussion on the sorption of chemicals by microplastics can be integrated into the current project, or whether it is better to develop this as a stand-alone project.*

**9. Cooperation and Joint Project with COCI**

Bipul Behari Saha reminded the Division VI members that the Chair of COCI is Anna Makarova and further informed members that he has agreed to become the Secretary of COCI. Bipul highlighted that COCI is an active committee that wants to build relationships with IUPAC Divisions, including Division VI.

A current project includes “Systems Thinking in Chemistry for Sustainability: Towards 2030 and Beyond”, which was approved by IUPAC for a starting date on September 1, 2020. The aim of this project is to publish a valuable book targeting students to learn about how green chemistry is being used by industry. Other points of discussion included that a project on COVID and waste disposal is certainly of interest to COCI, and that COCI members are involved in outlining how IUPAC has contributed to enhancing the United Nations’ Sustainable Development Goals.

*Action Items:*

1. *Hemda Garelick to share with Division VI members an email written by Jan Apotheker that provides further information about the project “Systems Thinking in Chemistry for Sustainability: Towards 2030 and Beyond”*
2. *Nadia Kandile to send her project idea on “Sustainable and green solutions for Covid-19 pandemic plastic wastes management to reduce risks of planetary boundary threat” to Division VI members*

**10. Cooperation and Joint Project with IHSS**

The International Humic Substances Society held a meeting in October 2020.

Irina Perminova has been appointed Vice-President of IHSS and has set a priority of developing a project towards the development of a chemical definition pertaining to humic substances that goes beyond classifying humic acids, fulvic acids and humin on the basis of solubility. Some Division VI expressed their interest in joining such project including Fani Sakellariadou and Annemieke Farenhorst.

*Action Item:*

1. *Irina Perminova to send her project idea on “Chemical definition of humic substances” to Division VI members*

**11. Collaborations with Other International Organizations**

There was a discussion about an ongoing collaboration with the Organization for the Prohibition of Chemical Weapons. Roberto Terzano was initially approached by a scientist in Italy to develop a project for the diffusion of the “Emergency Response Guidebook” in Russian speaking countries, especially of the Central Asian Area, and there have been substantial efforts to identifying collaborators, and collaborative units within OPCW, Division VI, Division VII, COCI and CCE. The overall aim of the project includes IUPAC leading an awareness campaign for managing chemical risk and the distribution of the guidebook.

## 12. IUPAC2021 Montreal: Symposia in Sustainability

### 12.1. Approved Symposia

### 12.2 Approaches to Budgeting for Symposia

The following symposia have been approved for IUPAC2021 Montreal:

- Sustainability Environmental Chemistry and Sustainability: The Environmental Impact of Fires. *Organizers (in alphabetical order by last name): Fani Sakellariadou, Roberto Terzano*
- Sustainability Environmental Chemistry and Sustainability: Emerging Technologies and Conservation Practices for Sustainable Agriculture and Public Health. *Organizers (in alphabetical order by last name): Annemieke Farenhorst, Laura McConnell, Diane Purchase*
- Sustainability Environmental Chemistry and Sustainability: A Healthy Intake: Environmental Pollutants in Air, Water, Food and their Removal. *Organizers (in alphabetical order by last name): Hind Al-Abadleh, Patrick Hayes, Bradley Miller, Kevin Wilkinson*
- Sustainability Environmental Chemistry and Sustainability: Sustainable Polymers *Organizers (in alphabetical order by last name): Nadia G Kandile, Christine Luscombe, Bulent Mertoglu, Wu Weiping*

Each of the above organizers are asked to have in their symposia a diversity of speakers. Specifically, symposia organizers are asked to include at least 50% of speakers to be women, racialized persons, Indigenous Peoples, and/or persons with a disability.

A general discussion followed whereby Division VI members recognized that:

- It will be important to look for external sponsorships, e.g. universities, industry
- It is not clear whether there is a possibility for a blended conference
- If travel funding is required, it would helpful to develop Division VI projects that speak to the four approved Sustainability Environmental Chemistry and Sustainability Symposia (see above)

#### *Action Item:*

1. *Annemieke Farenhorst to make inquiries in Canada to whether there is a possibility for a blended conference.*

## 13. Report on the Approved Projects and Proposals

Fani Sakellariadou informed Division VI members that there are 14 active projects in total. Two projects have asked for an extension for 18-months each. Out of the 14 projects in total, there are



four projects that have not replied to the inquires that Fani sent and three of these four projects need to be finished in 2020.

**Motion: As a Divisional committee, we approve the requested extentions.**

**Carried**

*Action Items:*

- 1. Hemda Garelick to contact two of the four project leads that did not provide a response to the inquiry of Fani Sakellariadou, asking them to provide for a project update. These two projects are 2018-013-2-600 Shevah and 2018-014-1-600 Gubala.*
- 2. Laura McConnell to contact the other two of the four project leads. This includes 2013-029-2-600 Kleter, who provided an update to this project in March 2020. This also includes 2014-026-3-600 Obare for which the status is unknown.*

#### **14. New Call for Project Proposals – Moving Forward**

Hemda Garelick reminded that the Division VI members should allocate time to reviewing the proposed project “Systems Thinking in Chemistry for Sustainability: Towards 2030 and Beyond” (see agenda item 9 above).

A general discussion followed on how to prepare for the new call for Project Proposals.

*Action Item:*

- 1. Roberto Terzano to update the Division VI website to include the new call for Project Proposals*

#### **15. Information about the Process for Division Nominations and Elections**

Laura McConnell provided the Division VI members with information about the process for the 2022-2023 Elections for Divisions, Standing/Interdivisional Committees. All appointments are typically for two years. Since current appointments end in 2021, the Division VI members need to start thinking about appointments to be made in 2022. Nominations will have to be early enough so that they can be included in the Elections for review and approved at the next Assembly. Particularly important are the nominations for Titarial Members and officers.

Laura McConnell also informed Division VI members that there will be a list coming out that explains current and previous contributions that Division VI members have made, and how this might influence what they can be nominated for in the future, including for 2022.

Laura McConnell also reminded individual members, who have the ability to do so, to ensure that they pay their individual IUPAC membership fees for 2021.

#### **16. Global Women’s Breakfast**

Laura McConnell shared some slides with the Division members that explained the successes of the Global Women's Breakfast which has been organized for the past several years. It typically starts in New Zealand and then moves around to World to end in Hawaii. Last year, there were at least 242 events in 53 countries, with at least 10,000 participants. Laura acknowledged that several of Division VI members play a key role in organizing events in their countries, such as Bipul Behari Saha in India, Oluseun Popoola in Nigeria, Nadia Kandile in Egypt, Fani Sakellariadou in Greece, Annemieke Farenhorst in Canada, Rai Kookana in Australia, as well as Hemda Garelick and Diane Purchase in the UK.

The date of the next Global Women's breakfast will be February 9, 2021. The GWB 2021 website will be updated within the next month or so to provide further information, and make available. A flyer can be circulated to assist in promoting the event. Laura McConnell encouraged Division VI members to play a key role in organizing the event in their institutions and countries, which would start by signing up for the GWB 2021 event when possible.

Laura McConnell also informed Division VI members on "Chemists Beyond the Bench", which involves a webinar series made possible because of a partnership between IUPAC and the International Younger Chemist Network (IYCN). Division VI members are encouraged to register for information about this initiatives and the next webinar:

<https://register.gotowebinar.com/register/587861997423364879>

#### **16. New ACS Journal**

Laura McConnell provide the Division VI members with information about a new ACS Journal: [ACS Agricultural Science and Technology](#). Laura will be serving as Deputy Editor for this journal and welcomes any suggestions for Division VI about nominations to serve on the Editorial Advisory Board, or as an Associate Editor.

#### **17. Additional Agenda Items or other New Business**

None.

#### **18. Approximate Timing of Next Meeting and Adjournment**

Discussed was that the next meeting should be held prior to the IUPAC2021 Montreal, with a subsequent meeting being held during August 2021 in conjunction with the IUPAC2021 Montreal.

Meeting Adjourned.