

Trust in Science

**Global Young Academy
International Conference
of Young Scientists
2021**



A word from the GYA Co-Chairs

This year, the GYA held its second online Annual General Meeting, in the second year in which we have all been living with the repercussions of the COVID-19 pandemic. For a vibrant network of young scientists and scholars that thrives on broadening horizons and catalysing trajectories through in-person connections, animated discussions, interaction with foreign cultures and different disciplines, these past two years have been a challenge! We have welcomed our second cohort that we have not met in-person yet.

GYA members, like the rest of the world, have been affected by illness themselves, illness in their families, as well as severe mental pressures while adapting in the new conditions of life. Most have faced the necessity to re-structure teaching, research organisation, daily life, and childcare, among other aspects.

But during our Annual General Meeting, it became obvious that GYA members are a special species of science leaders that have the right mindset to convert challenges to opportunities. As individuals and as an organization, we realize that life, society and the scientific environment have been shaken out of the old “normal” into new conditions that we are fortunate to be positioned to shape. How can we as young scientists participate in this re-shaping? What will the future look like for research and science around the world, and the international cooperation of science – science diplomacy, academic freedom and more?

In this context, and with ongoing global crises of climate change, biodiversity loss, and global health, it was clear to us that trust in science is more important than ever. We addressed this topic from different angles in conference sessions

open to the public, exploring the science-society relationship in the context of the COVID-19 pandemic, climate science, global food systems as well as science communication and open science.

Our 2021 online meeting demonstrated the energy of young scientists to tackle the world’s grand problems, together, despite the encumbered circumstances. GYA members have always found ways to meet online across time zones, and now we have learned to intensify our virtual collaboration. These learnings will accompany the GYA into a more sustainable future, even for our organisation.

We welcomed 31 new members and said farewell to an especially active alumni cohort, including three former Co-Chairs. Over 170 GYA members and alumni and over 490 external guests from 114 countries took part in our conference events. GYA’s Working Groups rebuild their forces for the year to come, re-energized their group members and inspired new ones to join.

In the coming year, the Co-Chairs and Executive Committee, appreciating the growing membership, alumni and global impact of the organisation, will focus our efforts on professionalisation as well as formalisation of operations and conduct. In the global spirit of anti-discrimination, we will aim this year at offering training specifically to GYA members to become ambassadors of inclusivity and diversity in the scientific community. Together, we hope to provide the right conditions, frameworks and platforms to empower GYA members to reach their full leadership potential to make an impact in society and inspire the next generation of scientists internationally.



Roula Inglesi-Lotz
(University of Pretoria, South Africa)



Michael Saliba
(University of Stuttgart, Germany)

Contents

International Conference of Young Scientists	4
“Trust in Science“	4
Trust in Climate Science	5
Transforming Food Systems: Public Trust and Engagement to Reach the UN SDGs	6
Science Policy Advice – Lessons Learned from the COVID-19 Pandemic.....	7
Improving Trust in Science through Communication	8
Building Trust with Open Science.....	9
GYA Working Groups – public discussions	10
Science diplomacy for trust building	10
Virtual Missions under YSAP: A New Normal	11
The COVID-19 Pandemic and Art	12
Science and Arts: Dialogues between languages of the mind	13
How might we scientists harmonise reason with sensibility?.....	14
Climate change, human trafficking, migration and food security	15
Global perspectives on anti-discrimination in science	16
Positive aspects of the pandemic: seeing the glass as half full	17
Different meanings of experiments across the GYA	18
Annual General Meeting.....	19
GYA elects leadership for 2021/22	20
Science Leadership Workshop for New GYA Members	21
Science Policy Memo Writing Workshop.....	22
GYA Partners.....	23

International Conference of Young Scientists “Trust in Science”

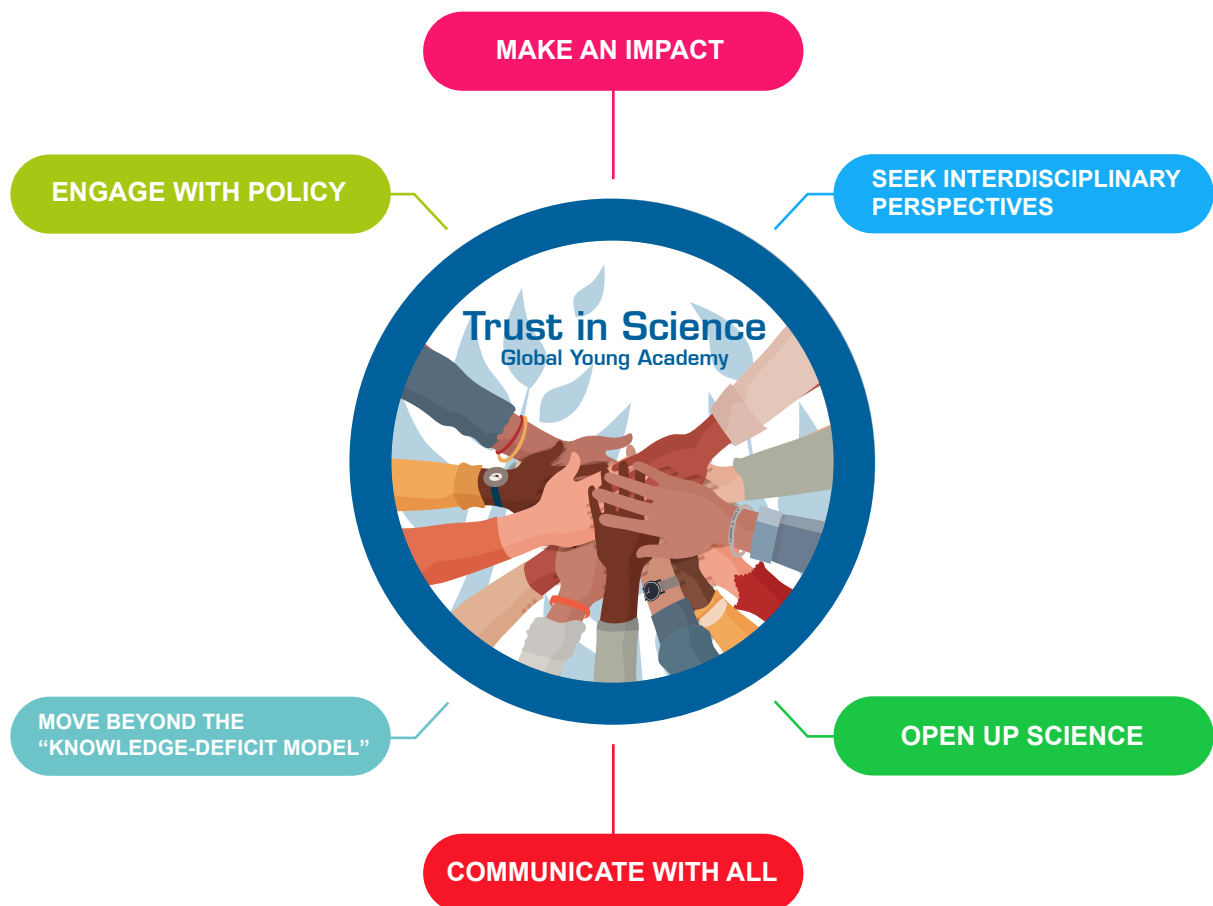
The GYA 2021 International Conference of Young Scientists addressed “Trust in Science” in a public online conference. Speakers and participants reflected on trust and trustworthiness from different regional and disciplinary perspectives, asking how science and science-based policy advice are communicated to the public, as well as discussing the integrity and transparency of the scientific process. Two panels explored the crucial global issues of climate science and food systems, for which public trust in science are central to future global developments.

In addition to the main conference panels, many GYA Working Groups held public presentations,

generating questions and debates among participants from around the world on various interdisciplinary topics.

Based on discussions during the conference, GYA members published a Position Statement on Trust in Science, which highlights key takeaways related to the role and responsibility of young scientists and scholars, and of science organisations, in building and maintaining public trust in science.

Recommended actions for early-career researchers and science organisations are outlined in the Position Statement and pictured in this infographic:



Read the full Position Statement “Trust in Science” [here](#).



Trust in Climate Science

Moderated by [Leila Niamir](#) (Mercator Research Institute on Global Commons and Climate Change, Germany), this satellite panel in March 2021 brought together experts in oceanography, physics, science policy and biodiversity to discuss an urgent need for climate action, and how scientists can build and maintain trust through communication of their work.

[Antje Boetius](#) (Alfred Wegener Institute, Germany) underscored that research entails not only the search for knowledge, but also an ethical obligation to promote human well-being. To gain trust in society, scientists need to communicate: both clear prognoses (which have been made, e.g. in IPCC reports), and ideas for new technologies and actions to counter risks. Scientists have warned about global warming since the 1960s; now we see a high correlation between global temperatures and increased CO₂ in the atmosphere over the last 50 years. As it becomes clear that the UN Sustainable Development Goals (SDGs) and related indicators are not on a path to be reached by 2030, scientists need to raise their voices. From the perspective of ocean research, at least one third of humans relies on ocean life as an essential source of food. Two early tipping points – massive loss of coral reefs and quickly melting arctic ice – show the real dangers of global warming to ocean health and sustainability.

[Michael Saliba](#) (University of Stuttgart, Germany) addressed the inevitable increase of total global energy demand over time, and called for a disruptive technological change towards mass production of energy from sustainable sources. Past paradigm shifts have shown that societies are ca-

pable of making drastic change even over a short period of time. With better data sharing and new financial models, renewable energy can be made profitable and attractive, creating new options for consumers. At the same time, interdisciplinary approaches (e.g. from economics and the social sciences) are needed to support a renewable energy revolution.

[Leena Srivastava](#) (International Institute for Applied Systems Analysis) asserted that trust comes from empowerment. The widespread transformation needed to combat climate change affects people at a personal level. Therefore to create trust, people need to hear about problems in a language they understand, from people whose interests are aligned to their own. Furthermore, for policy advice, solution and action-oriented communication is crucial to being heard. To this effect, increased cooperation between basic re-search and applied sciences will be important, but also the convergence of top-down and bottom-up solutions.

[Fernanda Werneck](#) (National Institute of Amazonian Research, Brazil) emphasized the importance of protecting biodiversity to counter climate change. Although for many scientists, the link between biodiversity and climate change is obvious, this perception is not reflected in media coverage. Increased awareness of the importance of biodiversity, e.g. by recognizing and protecting “ecosystem services”, can be a means of increasing public trust and openness to sustainable action. The biodiversity narrative offers ways to engage people close to their real lives with climate issues.

Watch the full panel and discussion here: <https://youtu.be/DHGBrFE1uYI>



Transforming Food Systems: Public Trust and Engagement to Reach the UN SDGs

With input from diverse perspectives from science and industry, this panel addressed how we can increase public trust, understanding and engagement in a common effort to shift towards sustainable food production and consumption. The 2021 United Nations (UN) [Food Systems Summit](#) was convened to re-think and transform global production and consumption of food in a way that collaboratively works toward achieving the UN Sustainable Development Goals (SDGs). This discussion with experts, early-career researchers and professionals was moderated by [Anet Režek Jambrak](#) (University of Zagreb, Croatia) and [Shalini Subash Arya](#) (Institute of Chemical Technology Mumbai, India).

[Carina Keskitalo](#) (Umeå University, Sweden) introduced key points raised to the European Commission for a path to a just and timely transition to sustainable food systems in the European Union, in a [2020 expert report by the Group of Chief Scientific Advisors](#). The report calls for making environmental, social and economic sustainability the central objective of all policies relevant to food. Alongside mainstream policy changes, such as pilot projects and food initiatives, it is important to address power and information asymmetries in the food system and to strengthen vulnerable actors. More nutritious food not only needs to be more accessible, but well-communicated, to support people to make nutritious consumption choices.

[Chibuikwe Udenigwe](#) (University of Ottawa, Canada)

spoke from a food science perspective, and highlighted the need to work as a community and engage with scientists from different disciplines, as well as society in general, to generate impactful outcomes and gain public trust. In particular, reintroducing underutilised indigenous foods can reduce our reliance as a society on the current limited selection of foods, encourage local production, and reduce the environmental cost of transport and food waste. Further, inclusive data-gathering – using indigenous or local knowledge – can drive innovation for local and global problems that are not documented in the scientific literature; e.g. local methods for effective and sustainable food preservation. While simple, solutions like these need public engagement and increased awareness.

[Hugo de Vries](#) (President of the European Federation of Food Science and Technology) presented two principles that are essential to achieving sustainability. First, sustainable systems need balance: Our current tendency to pursue growth is unsustainable. Second, sustainability needs to be seen from a wholesome, global perspective, as everything is highly interconnected. He called on scientists working towards more sustainable food systems to engage in cross-disciplinary teamwork, include multiple stakeholders and actors and embrace uncertainty with an honest and kind approach. Individuals can make a difference by working on concrete problems; even seemingly small solutions can be scaled up.

Watch the full panel and discussion here: <https://youtu.be/2whKK8nNYbY>



Science Policy Advice – Lessons Learned from the COVID-19 Pandemic

Organized in collaboration with the GYA's [Science Advice](#) and [Global Health](#) Working Groups and moderated by [Mai Tolba](#) (Ain Shams University, Egypt) and [Luciana Balboa](#) (National Academy of Medicine, Argentina) this session explored the benefits of building bridges of trust between science and policy with a view to managing global health risks such as the COVID-19 pandemic. Researchers from four continents addressed how early and mid-career scientists and scholars can contribute to the science-policy interface in times of crisis.

[Emilie Karafillakis](#) (Vaccine Confidence Project, UK) focused on vaccine hesitancy and successful communication tools to increase trust in this field. Vaccine scepticism is a global phenomenon, but there are clear regional and national differences. In general, people are more willing to trust health-care professionals than other sources for vaccine information. Interestingly, with increased science and health-related communication during the COVID-19 pandemic, demand for the flu vaccine increased in Europe in 2020. To increase trust, Emilie recommended better-targeted communication overall, and engaging patients in processes related to decisions about their health care. Further, it is important to move beyond the knowledge-deficit model: Information is important, but it is more effective to address the context, social identity and emotions of people, to really reach the public.

[Gagandeep Kang](#) (Christian Medical College Vellore, India) discussed the many factors that influence processes of science advice and communication: evidence, experience and expertise, but also informal factors such as seniority and gender issues may play a role. She recommended thoughtful use of data – e.g. extract insights to make data actionable – and a good understanding of the political context and actors involved. Establish credibility, provide practical solutions and use familiar narratives for effective communication.

GYA members [Justine Germo Nzweundji](#) (Ministry of Scientific Research and Innovation, Cameroon) and [Alma Hernández-Mondragón](#) (Center for Research and Advanced Studies of the National Polytechnic Institute, Mexico) spoke from their perspectives as early career researchers with the science-policy interface in Africa and Latin America, respectively, during the COVID-19 pandemic. For a trustworthy science advice process, scientists should strive to remain non-partisan, provide strong advice, and have a clear mission. Scientific evidence is necessary for good policy, and early career researchers should be encouraged to engage in policy debates. To do this well, they need training in communication skills and science advice: providing information only does not lead to better policy.

Watch the full panel and discussion here: <https://youtu.be/kKiUNBW08aw>



Improving Trust in Science through Communication

Moderated by [Lisa Herzog](#) (University of Groningen, The Netherlands), co-lead of the GYA [Trust in \(Young\) Scientists](#) Working Group, this session discussed opportunities and challenges of science communication as a tool for building societal trust in science. Panellists discussed the implications for individual scientists, but also for the scientific community.

[Marcia Barbosa](#) (Federal University of Rio Grande do Sul, Brazil) urged scientists to leave their disciplinary bubble more often, communicating with and listening to other scientists. When communicating with others, scientists should show evidence and empathy, building trust with honesty about what scientists know and what they don't know. It is important to show the forward moving developments in science, as well as where unconscious trust in science already exists (e.g. many people drive cars or trust standard medication).

[Daniel Sarewitz](#) (Arizona State University, USA) put science itself at the focus of his talk, emphasizing the complexity of the sciences and of how scientific evidence interacts with society. Science cannot be reduced to controlled experiments and clear results, but is rather embedded in a setting with uncertainty and disputed values. This “post-normal” science requires strong institutions, working transparently and involving a multitude of stakeholders in democratic decision-making processes. Trust in

science is thus less of a communication problem and more of an institutional design problem.

[Stephan Lewandowsky](#) (University of Bristol, UK) argued that while science works to maximise its trustworthiness through, e.g. open access, reproducibility and peer review, being trustworthy does not always result in being heard. As soon as science addresses issues where there is a political or commercial interest, scientists need to be aware that they are not communicating in neutral ground. More awareness in society is needed regarding how to recognize misleading information.

A lively discussion among participants ensued, around the responsibility of individuals and institutions, and the role of uncertainty and value differences, in a trusting relationship between science and society. Finally, on the occasion of this panel, the Trust in (Young) Scientists Working Group published three new short videos from its project „[Science with Society \(SciSo\)](#)“, in collaboration with the German National Institute for Science Communication (NaWik), funded by the Volkswagen Foundation. The project aims to raise awareness, particularly among young scientists, about the role of science in society through the production of short, accessible videos on topics of science ethics and communications.

Watch the full panel and discussion here: <https://youtu.be/1k9X4rGJQe4>



Building Trust with Open Science

Moderated by [Natasha Gownaris](#) (Gettysburg College, USA) co-lead of the GYA [Open Science](#) Working Group, this session discussed challenges and aims of open science, with a particular focus on open access models. Open Research Europe (ORE) was presented as a publicly funded open access case study.

[Elizabeth Marincola](#) (African Academy of Sciences Open Research) addressed open access developments against the background of the history of publishing. Many early aims of scientific publishing remain important today: to share, distribute and archive knowledge, to document who has made certain findings, and to validate evidence through peer review. She explained how the African Academy of Science open research platform aims to be transparent with new open access publishing models.

[Abdullah Shams Bin Tariq](#) (University of Rajshahi, Bangladesh) presented the preliminary outcomes of an InterAcademy Partnership Working Group he chairs: „Harnessing the world’s academies to combat predatory publishing practices“. Predatory publishing, if allowed to continue at its current rate, will have detrimental effects on trust in science worldwide. Unfortunately, the growth of open access has gone hand in hand with a growth in predatory journals. Author-pay models of open access seem to support this development, as publishers can sacrifice quality and benefit from an overflowing demand from authors to publish. Abdullah Shams discussed alternative, publicly funded models, and called on future science leaders to become involved in this important policy for

science arena.

[Victoria Tsoukala](#) (Open Research Europe, European Commission) outlined developments in EU law to support open science, and specifically the new Open Research Europe (ORE) platform, developed by the European Commission to publish EU-funded research. ORE is an infrastructure service offered to grantees so that they can comply with EU policy, aiming to build public trust through transparent processes and open access.

[Liz Allen](#) (F1000 Research and King’s College London, UK) addressed the aims of ORE, implemented by F.1000, to facilitate open access but also to support researchers in their work. This entails working with other organisations and platforms on communication and outreach, as well as cross-referencing. As a service-provider, F.1000 aims to embed all pillars of open science into publishing – from open research data and code to open access and open peer review.

[David Fernandez Rivas](#) (University of Twente, The Netherlands) spoke from the perspective of early-career researchers about some of the challenges with open access, and initiated a discussion about the accessibility and future of ORE. One point of discussion addressed the potential benefits and problems of open peer review: on the one hand, it gives credit to reviewers for otherwise invisible work, on the other hand, it can create complications for early-career researchers who may critically review more established researchers in an open process.

Watch the full panel and discussion here: <https://youtu.be/ug1Xgpms1hQ>



Science diplomacy for trust building

Organised by: [Science Diplomacy in South Asia](#) Working Group

Moderators: [Anindita Bhadra](#) and [Shabana Khan](#)

Report by: Shabana Khan (School of Planning and Architecture, India)

This session looked at current scenarios and various opportunities available to build trust in science through science diplomacy. It also highlighted frontiers where young scientists can participate and contribute. The meeting opened with Peter McGrath, coordinator at the InterAcademy Partnership, who highlighted the use of science diplomacy for building trust among nations. Next, Muhammad Adeel, diplomat at the Arms Control, Disarmament and Science Diplomacy Division at the Ministry of Foreign Affairs, Pakistan and Ph.D. Scholar in Agricultural Biotechnology at the WA State Agriculture Biotechnology Centre, Australia. Muhammad spoke about various career opportunities available for young scientists in the space of science diplomacy.

From the GYA, several speakers focused on regional perspectives and issues in science diplomacy. [Paulina Carmona-Mora](#) (University of California-Davis, USA) discussed the case study of Latin America. She called attention to the role of global affairs in connecting countries through science, and emphasized increasing diversity in the scientific community. [Jauad El Kharraz](#) (Middle East Desalination Research Center, Oman) spoke on science diplomacy initiatives in the MENA region. Finally, Anindita Bhadra (Indian Institute of Science Education and Research, Kolkata, India) spoke about the GYA's activities in the Science Diplomacy in South Asia Working Group over the past year.

Watch the full discussion here: https://youtu.be/_mQfQyvE20



Virtual Missions under YSAP: A New Normal

Organised by: [Young Scientists Ambassador Programme](#) (YSAP) Working Group

Moderators: [David Fernandez Rivas](#) and [Chandra Shekhar Sharma](#)

With COVID-19 travel restrictions in place, “electronic missions” were conceptualised to replace in-person exchange between scientists in different world regions. Two electronic missions executed over the last year resulted in positive experiences. This session discussed the work of YSAP and invited more GYA members to consider applying for a YSAP mission.

The GYA Young Scientist Ambassador Programme (YSAP) Working Group encourages cultural, scientific, intellectual, or educational interactions across world regions among GYA members. The ambassadorships occur between two countries that are at different stages of scientific development, or between two countries that historically have had minimal scientific contact. YSAP organises and

funds Ambassadorships, wherein GYA members travel between developed and developing countries, transferring expertise and knowledge and otherwise increasing engagement between nations of different scientific development.

Over the last year, electronic missions were carried out between [Pradeep Kumar](#) (Wits University, South Africa) and [Filippo Rossi](#) (Politecnico di Milano, Italy), introducing their students to advanced molecular mechanics simulation techniques through virtual lab tours; and between Chandra Shekhar Sharma (Indian Institute of Technology (IIT) Hyderabad) and David Fernandez Rivas (University of Twente, The Netherlands), with a virtual tutorial and joint experiment with their respective teams.

Read more about past missions of the Young Scientist Ambassador Programme here: [Young Scientist Ambassador Programme | Global Young Academy](#)



The COVID-19 Pandemic and Art

Organised by: [2020/21 Interdisciplinary Grant Project Group](#)

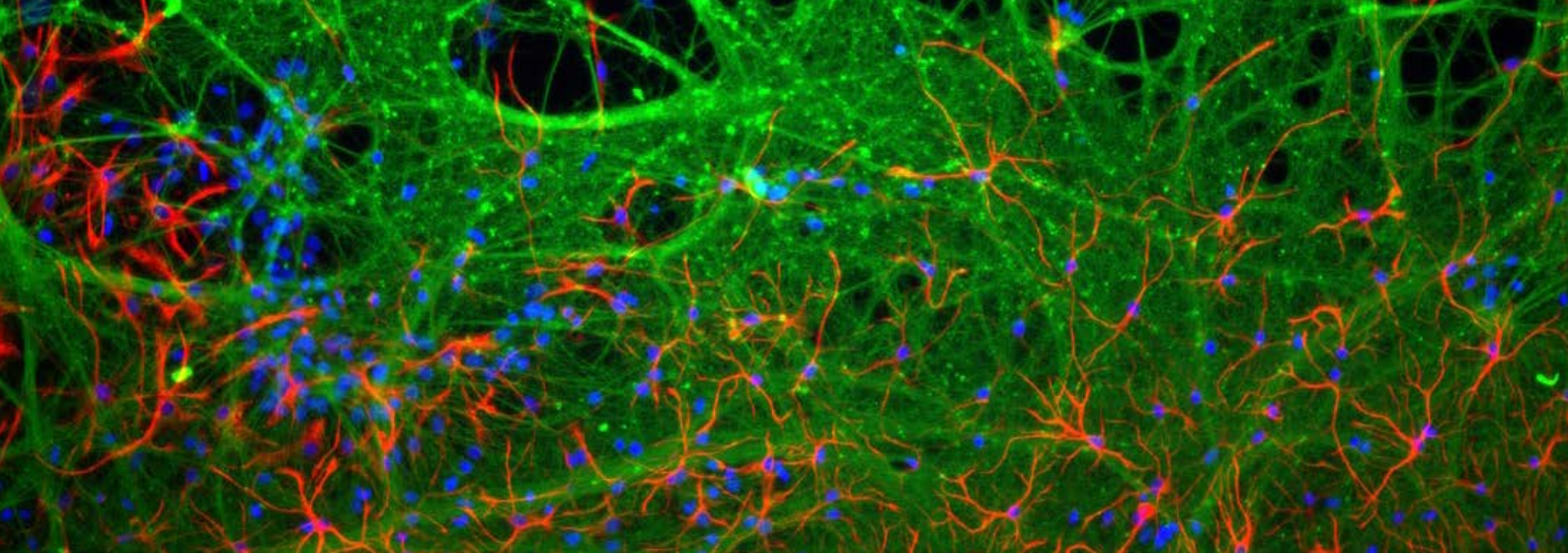
Moderators: [Stefan Kohler](#) (Heidelberg University, Germany) and [Andreea Molnar](#) (Swinburne University of Technology, Australia)

Report by: Stefan Kohler

The COVID-19 pandemic and art session was part of the 19and.ART project of the Global Young Academy. The session explored connection points between art and the COVID-19 pandemic, such as art as data about the pandemic, art as a complement to epidemiological data, and art to mitigate health effects of the pandemic. [Anna Harris](#) (Maastricht University, The Netherlands) spoke about collecting sensory data during the pandemic and making data sensorialisations. [Bach Tran](#) (Vietnam) and members of his team shared findings from a study utilizing art therapy in Vietnam in the context of the COVID-19 pandemic. [Cristina Blanco](#)

[Sío-López](#) (Ca' Foscari University of Venice, Italy) presented some of her analyses of printed press cartoons during the COVID-19 pandemic. [Sergey Kostyrko](#) (St. Petersburg State University, Russia) invited the audience to think about sound art and the challenges that artists face during the pandemic. The session explored what it means to collect and represent sensory data (in addition to numbers) in the pandemic, how art-therapy could be used to respond to COVID-19-related health challenges, how visual storytelling could be used in the COVID-19 context, and how sound art and sound studies might help understand a changing world.

Watch the full discussion here: <https://youtu.be/qo9K1yemyBQ>



Science and Arts: Dialogues between languages of the mind

Organised by: [Science + Art = Peace + Justice](#) (SAPJ) Working Group

Moderators: [Cristina Blanco Sío-López](#) and [Sergey Kostyrko](#)

Report by: Sergey Kostyrko

This session represented the projects which are under development by members of the SAPJ Working Group. [Anna Harris](#) (Maastricht University, The Netherlands) and [Karen Cloete](#) (University of South Africa) talked about the Sketches and Poems of Science initiative conducted in collaboration with the working groups [History of the GYA](#) and [Trust in \(Young\) Scientists](#), which aims to offer insights into the creativity of scientists. In particular, Anna spoke about a creativity process associated with scientific sketches, and Karen discussed the connections between science and poetry. Cristina Blanco Sío-López (Ca' Foscari University of Venice, Italy) shared her research within [COVID-19 Pandemic and Art project](#) developed with other GYA members and funded by the 2020/21 Interdisciplinary Grant. Cristina discussed the approaches of historical analysis of press cartoons printed during the

COVID-19 pandemic and focused on the concepts of 'mirrors and triggers' to assess to what extent we could use these artistic sources as a reflection of the pandemic's main turning points, but also as discussion points for new directions. Sergey Kostyrko (St. Petersburg State University, Russia) presented the [Aesthetics of Biodiversity](#) compilation which was prepared under joint curation with [Alexander Kagansky](#). The compilation is focused on the video and sound art works of artists inspired by biological and ecological concepts. During the session, the potential of science-art projects and the benefits of science and art combination were discussed. The session launched calls for new actions centred on sketches on science, poetry writing and transforming science abstracts into poetry. All welcome!

Watch the full discussion here: <https://youtu.be/LFOR2DqcfRI>



How might we scientists harmonise reason with sensibility?

Organised by: [Harmonising Reason with Sensibility](#) Focus Group

Moderator and reporter: [Yoko Shimpuku](#) (Hiroshima University, Japan)

This session introduced the theme “Harmonising Reason with Sensibility” as an opportunity to review the relationship between science, scientists and society, and to foster a comprehensive and sustainable society through new ways of connecting these. [Jan-Christoph Heilinger](#) (RWTH Aachen University, Germany) spoke from the perspective of moral and political philosophy, emphasizing that when scientists are open to perceiving problems in the world, and consequentially apply reason to better understand or find solutions to these problems, then they are combining sensibility and reasoning at the core of their work. [Mitsunobu Kano](#) (Okayama University, Japan) discussed cultural nuances which shape different approaches to reason and sensibility in science: in many Asian countries, uniformity and harmony are highly valued, whereas diversity and individualism tend to be assets in Western countries. [Rob Jenkins](#) (University of York, UK) brought up the sensibility associated with the

personal lives of scientist, which is also relevant to how they generate knowledge, but often not addressed. This discordance can magnify differences between scientists and non-scientists, overlooking commonalities between them. [Sandra Lopez-Verges](#) (Gorgas Memorial Institute for Health Studies, Panama) followed up on this idea that an emotional connection between scientists and non-scientists is a necessary basis for trust in science. She added the importance of cultural sensibility, since norms of interaction and respect vary across cultures. Participants discussed their questions, experiences and perspectives in breakout rooms and the results in the plenary. In conclusion, several important points related to harmonising reason with sensibility were identified in the importance of sharing responsibility to care for future generations, and the need to apply scientific knowledge to work towards the achievement of the UN SDGs.

Watch the full discussion here: <https://youtu.be/5tOuM9DUBsg>

Read more about the planned 2022 International Conference of Young Scientists „Harmonising Reason with Sensibility“ [here](#).



Climate change, human trafficking, migration and food security

Organised by: [Climate Change and Disaster Risk Reduction](#) Working Group

Moderator: Shabana Khan (School of Planning and Architecture, India)

Report by: [Shabana Khan](#) and [Vanessa Schweizer](#) (University of Waterloo, Canada)

This session brought together case studies from different parts of the world to address how climate change related disasters can lead to poverty, migration, conflict and displacement.

The first speaker was Joyashree Roy, who holds the Bangabandhu Chair for Sustainable Energy Transition at the Asian Institute of Technology in Thailand, and is Professor of Economics at Jadavpur University, India. She talked about extreme events, particularly droughts and floods, and their impacts on food security and migration in India and Bangladesh. Next, Patricia Elaine Perkins, an ecological economist concerned with climate justice, and Professor at York University, Canada, pointed out what it means to be a climate refugee. She explored some of the reasons why people get displaced, and highlighted the scale of climate-induced displacement. She also discussed the „right to remain“ in relation to climate justice. Emmanuel Nuesiri, who teaches at the African Leadership University and is a fellow of the Royal Society of Arts (FRSA) in the UK, spoke about climate precarity and migration from Africa. He told a personal story to illustrate how extreme climate conditions

together with inadequate infrastructure can lead to increasing feelings that leaving a place is the best option for a secure future.

Further, both working group co-leads presented case studies from Africa and Asia. [Chioma Daisy Onyige](#) (University of Port Harcourt, Nigeria) cited examples of how climate change related disasters negatively impact means of livelihood in several African countries. The most vulnerable people turn to smugglers, which has also created opportunities for human traffickers to take advantage of economically deprived women, children, and vulnerable people, trafficking them into forced labour and prostitution. [Renard Siew](#) (Accelerating Climate Action, Malaysia) talked about the impact of climate change in Malaysia, and the psychological impacts on top of the physical impacts of extreme climate events.

Participants discussed the different levels of governance at which climate policy is addressed, and how communities can engage with a global problem such as climate change.

Watch the full discussion here: <https://youtu.be/iEgvxBZwwwQ>



Global perspectives on anti-discrimination in science

Organised by: [Addressing Systemic Discrimination Focus Area](#)

Moderator and reporter: [Rüstem Ertuğ Altınay](#) (Kadir Has University, Turkey)

This session featured presentations by [Prosper Ngabonziza](#) (Max Planck Institute for Solid State Research, Germany), [Vanessa Schweizer](#) (University of Waterloo, Canada), and [Mirjam Brusius](#) (German Historical Institute London, UK). The panel facilitated a public discussion about the state of inclusivity and equity in science, and the need for anti-discrimination efforts. Prosper's remarks focused on racism and other forms of discrimination in academia, scientific institutions, and the industry. Pointing to the failure of existing gatekeeping systems in addressing systematic discrimination, he made suggestions for developing Focus Group activities to collect data and increase awareness about the problem. Vanessa emphasized how systemic discrimination functions in complex ways, and noted the recent strategies developed against

this problem in North America. She suggested that the GYA should set an example in working towards reconciliation at both the macro and micro levels. Mirjam presented her insights from the museum world. She noted the importance of implementing leadership, accountability, and sustainability measures to combat systematic discrimination, and underlined how the distribution of resources is crucial for creating sustainable change. Miriam further suggested that GYA's advocacy activities with national academies as well as governments and civil society organisations can contribute to efforts to fight systematic discrimination. Following a vibrant Q&A, the session introduced the Focus Area Group website as well as the forthcoming tools designed to help young scientists adopt anti-discrimination practices.

Watch the full discussion here: <https://youtu.be/srhrrlypLAM>



Positive aspects of the pandemic: seeing the glass as half full

Organised by: [Women in Science](#) Working Group

Moderators: [Nafissa Ismail](#) and [Menattallah Elserafy](#)

Report by: Menattallah Elserafy

During this session, panellists discussed the impact of the pandemic on their personal and professional lives. While it is clear that the pandemic has been challenging in many ways, the panellists also shared several positive consequences of the pandemic in their lives. Some of these consequences include saving on travel time, being able to attend international conference (virtually) while parenting young children, reduced pollution due to reduced travel, more quality time with loved ones, etc. These discussions were extremely informative and refreshing as we moved away from the negativity

around us to appreciate and cherish the positive consequences of the pandemic and lockdowns. Early in the pandemic, the GYA Women in Science group met to exchange their experiences and coping strategies. The resulting collection of experience and advice for women in science and academia was published in May 2020. „GYA Women in Science stay and work from home: How might we make Covid-19 lockdown work for us?“ can be read here: <https://globalyoungacademy.net/women-in-science-and-covid-19/>

Watch the full discussion here: <https://youtu.be/78yZnFfyRzY>



Different meanings of experiments across the GYA

Organised by: [Critical Experiments](#) Incubator Group

Moderator and reporter: [William Godsoe](#) (Lincoln University, New Zealand)

This working group focused on the practice of experiments across the GYA. Researchers in many disciplines use experiments as a tool to understand their study areas, but the practice, theory and practicalities of experiments can vary immensely. Using results of a survey of GYA members, the Incubator group found that major limitations to experiments included financial resources and technical skills. In this session, three videos of GYA members describing their personal experiences of doing experiments were featured. These short interventi-

ons, by [Robert Lepenies](#) (Karlshochschule International University, Germany) [Lisa Herzog](#) (University of Groningen, The Netherlands) and [Nova Ahmed](#) (North South University, Bangladesh), raised issues of who gets access to experiments, how experiments are evaluated and how experiments can be adapted to confront world changing events like COVID-19. The Incubator group hopes to follow up with in-person discussions and exchange at future GYA meetings.

Watch the full discussion here: <https://youtu.be/h3XRxt9cxKQ>



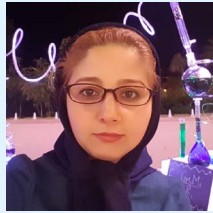
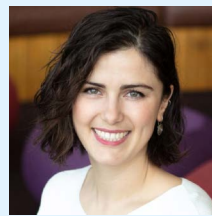
Annual General Meeting

Learning from the past year, the GYA continues to expand its options for designing interactive on-line meetings. Data top-up funding was offered to members from low and middle income countries to partially offset internet costs, breaks were integrated into the programme, and several platforms were set up for live and asynchronous interaction. Similar to in-person meetings, the main body of the 2021 Annual General Meeting (AGM) was held over four days, preceded by online skills-building workshops.

Meetings of the General Assembly discussed internal functions and development of the GYA as an organization. Topics included networking and partnerships, committees development, and the future of research and science after COVID-19. Live on-line meetings were supported by asynchronous interaction on a message board platform, [the GYA Agora](#). GYA Working Groups met in the weeks before and after the AGM, to integrate new members and make plans for the coming year.

The AGM was an occasion to announce several important decisions and milestones of the GYA:

In the wake of the passing of an inspiring and beloved GYA alumni, Alexander (Sasha) Kagansky, the EC decided unanimously to re-name the GYA North-South Interdisciplinary Grant to the [Sasha Kagansky Interdisciplinary Grant](#). Sasha was a past recipient of the 2015/2016 North-South Interdisciplinary Grant himself, and he embodied the principles that the scheme seeks to encourage. The GYA EC approved a proposal by the At Risk Scholars Initiative to establish an ongoing [alternative membership path](#) for up to one GYA membership slot per year. With this decision, the GYA signals its support for at-risk scholars and for academic freedom around the world. Starting in January 2021, the GYA is no longer a short-term project, but receives [open-ended core funding](#) (subject to annual approval) by the German Federal Government, as well as the State Government of Saxony-Anhalt, where the GYA Office is hosted by the German National Academy of Sciences Leopoldina. This success is thanks to the dedication of several generations of GYA members, leadership, partners and Office staff.



GYA elects leadership for 2021/22

The GYA elects 2 Co-Chairs and 9 more members of its Executive Committee (EC) each year at AGMs. In 2021, members elected [Roula Inglesi-Lotz](#) (University of Pretoria, South Africa) and [Michael Saliba](#) (University of Stuttgart, Germany) as Co-Chairs, and to the EC: [Michael Backes](#) (University of Namibia, Namibia); [Derya Baran](#) (KAUST, Saudi Arabia); [Cristina Blanco Sío-López](#) (University of Pittsburgh / Ca' Foscari University of Venice); [Lahcen](#)

[El Youssfi](#) (Khenifra Superior School of Technology, Sultan Moulay Slimane University, Morocco); [Mohamed Elhadidy](#) (Zewail City of Science and Technology, Egypt); [Encieh Erfani](#) (IASBS, Iran); [Anna Harris](#) (Maastricht University, The Netherlands); [Abhijit Majumder](#) (Indian Institute of Technology, India); and [Prosper Ngabonziza](#) (Max Planck Institute for Solid State Research, Germany).

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In a world in which the voices for diversity, social justice and equal opportunities get louder, the Global Young Academy is here to serve as a platform for young scientists around the world to express their own voice. If nothing else, the COVID-19 pandemic has taught us that connectivity, collaboration and sharing are key to sustainable growth and development.

- Roula Inglesi-Lotz (University of Pretoria, South Africa)

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The GYA brings people from all disciplines and walks of life together. It is now an established voice within the scientific and science advice community. We will strive to make this voice heard even more in the coming year and look forward to working together with everyone.

- Michael Saliba (University of Stuttgart, Germany)

“



Science Leadership Workshop for New GYA Members

Pre-AGM science leadership workshops have become an annual training opportunity for new members; this year was the second online workshop. Using a host of digital platforms, participants interacted in large and small groups to practice collective leadership tools, facilitated by Inclusive Innovation. Despite widespread zoom fatigue and pandemic exhaustion, many new members found the workshop sessions refreshing and worth the time spent. 34 participants – mainly [newly selected members](#) – convened in two time zone cohorts. The workshop was designed to give participants space to reflect together on how to be leaders in diverse contexts: in their research contexts, in the institutions and communities where they live and

work, and within the GYA.

A warm thank you to the following GYA members and alumni who participated in some of the new member workshops in the role of mentors, to guide and encourage new members and be there to answer questions about working within the GYA: [Robert Lepenies](#), [Derya Baran](#), [Abhijit Majumder](#), [Roula Inglesi-Lotz](#), [Paul Mason](#), [Monir Ahmed](#), [Me-nattallah Elserafy](#), [Binyam Sisay Mendisu](#), [Pradeep Kumar](#), [Chika Ejikeyuwu](#), [Tolu Oni](#) and [Vanessa Schweizer](#).

Read more about the GYA science leadership model, and related programmes and workshops [here](#).

Reflections from participants

” This workshop helped me to see myself, my work, and my world a little differently, and with this different view I feel excited about taking on bigger and bolder challenges. “

– [Kate Crowe](#) (University of Iceland, Iceland)



” The approach of reframing problems as questions may lead us to find innovative solutions, and thanks to this workshop I realized that, by simply reframing problems, I could find new angles, leading me to stop thinking of the problem as it is, and repurposing my thoughts towards the possible solutions. It represents an active and positive attitude to a challenging situation, instead of just pointing out problems or complaining about them. The overall message of the workshop about the importance of reflection made me come across this powerful expression by Confucius: Study without reflection is a waste of time, Reflection without study is dangerous. “

– [Luciana Balboa](#) (Institute of Experimental Medicine- CONICET, Argentina)



” Deliberate small changes are the pieces for huge overturn, even when you are merely the first follower. “

– [Chan Siok Yee](#) (Universiti Sains Malaysia, Malaysia)





Science Policy Memo Writing Workshop

Report by Felix Moronta Barrios and Nicole Parker

Together with the [Journal of Science Policy & Governance\(JSPG\)](#), the GYA's [Science Advice](#) Working Group held a joint virtual science policy memo writing workshop for early career researchers all across the globe. The workshop aimed to equip early career researchers with the essential tools needed to write effective policy memos. 70 participants from over 20 different countries came together across time zones to develop skills for writing science policy memos on topics related to the 2021 GYA Annual Conference theme "Trust in Science."

The workshop began with a keynote presentation by Doyin Odubanjo, Executive Secretary at the [Nigerian Academy of Science](#), focusing on the intersection between science and policy making. He provided several tips on how to write an effective policy memo, including but not limited to using simple language, providing evidence, and being succinct. Throughout the presentation, he emphasized the importance of *knowing your audience* and *conducting stakeholder analysis* prior to writing the memo.

Following the keynote, JSPG's Director of U.S. Outreach, [Nicole Parker](#), provided an overview of the journal and opportunities to publish. GYA member [Felix Moronta Barrios](#) (International Centre for Genetic Engineering and Biotechnology, Italy) introduced the GYA and the Science Advice Working Group. Working in groups, participants developed outlines for their science policy memos on "Transforming Food Systems: Public Trust and Engagement to Reach the UN SDGs" and "Science Policy Advice – Lessons Learned from the COVID-19 Pandemic," topics of the 2021 GYA Annual Conference on "Trust in Science." Both topics led to a robust discussion led by moderators, four of whom were GYA members: [Tolu Oni](#) (University of Cambridge, UK), [Markus Prutsch](#) (European Parliament / Heidelberg University, Germany), [Pradeep Kumar](#) (Wits University, South Africa), and [Felix Moronta Barrios](#) (ICGEB, Italy).

Participants drafted memo outlines on Day 1, which were reviewed on Day 2 for expert feedback. Among the supporting experts were GYA alumni [Vidushi Neergheen](#) (University of Mauritius), [Ghada Bassioni](#) (Ain Shams University, Egypt), [Shaheen Motala-Timol](#) (Tertiary Education Commission, Mauritius) and GYA member [Stefan Kohler](#) (Heidelberg University, Germany). Feedback emphasised that the workshop was extremely helpful in building confidence for participants in writing an effective and impactful science policy memo.

To watch the full workshop, visit [JSPG's YouTube page](#).

GYA Partners

Many thanks to the GYA members and alumni, conference speakers and partner organisations working together to make this online gathering possible. The 2021 New Member Science Leadership Workshop was made possible by funding from the Gordon and Betty Moore Foundation.



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Emil-Abderhalden-Str. 37
06108 Halle (Saale), Germany

Contributing Writers:

Rüstem Ertuğ Altınay
Felix Moronta Barrios
Yensi Flores Bueso
Paulina Carmona-Mora
Menattallah Elserafy
William Godsoe
Roula Inglesi-Lotz
Nicole Parker
Shabana Khan
Stefan Kohler
Sergey Kostyrko
Michael Saliba
Vanessa Schweizer
Yoko Shimpuku
Jennifer Plaul (Editor)

Design & Layout: Kevin Bolte

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Contact: media@globalyoungacademy.net

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About the Global Young Academy

The vision of the GYA is science for all; science for the future, and its mission is to give a voice to young scientists and researchers around the world. The GYA, founded in 2010, is an independent science academy of 200 outstanding early- to mid-career researchers from six continents who are selected from across disciplines based on their academic excellence and commitment to engage with society. GYA members serve five-year terms, and the GYA presently counts members and alumni from 94 countries. The GYA administrative Office is publicly funded and hosted at the German National Academy of Sciences Leopoldina. The wide array of GYA activities is supported by a range of international public and private funders.

Co-Chairs: Roula Inglesi-Lotz (University of Pretoria, South Africa)
Michael Saliba (University of Stuttgart, Germany)

Managing Director: Beate Wagner (Germany)



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