



**GLOBAL
YOUNG
ACADEMY**

**The 5th International Conference
of Young Scientists &
GYA Annual General Meeting**

**Innovation for
Sustainable
Globalization**

**25-29 May 2015,
Québec, Canada**

Contents

| | |
|---|----|
| A Word from the GYA Co-Chairs | 4 |
| Executive Summary | 6 |
| DIY Science: Innovation in an age of risk and uncertainty | 12 |
| Programme Highlights I | 14 |
| Science Fair Hack | 14 |
| “Leaving the Ivory Tower: Making the transition from research to politics” A conversation with Members of Parliament Kirsty Duncan and Kennedy Stewart moderated by Jeremy Kerr (GYA) | 16 |
| Keynote Address - His Excellency David Johnston - Governor General of Canada | 18 |
| “Going Viral With Your Science” - Gregory Weiss (USA) | 20 |
| Programme Highlights II | 22 |
| Panel: “The Changing Map of Innovation” | 22 |
| The Future Earth Initiative and Panel Discussion | 24 |
| The Global Young Academy: An evolving organization | 26 |
| Introduction of Activity Themes | 27 |
| Transformative Potential: Reflections on GYA culture and gender equality | 29 |
| The Program | 37 |

Publishing Date: November 2015

Publisher:

Global Young Academy
Jägerstr. 22/23
10117 Berlin
Germany

Design: Florian Wiencek / Global Young Academy

Layout: Arthurius

Images: The image rights remain with the original creators.

Media Contact:

media@globalyoungacademy.net
+49 (0)30 20370 - 653

www.globalyoungacademy.net

© Global Young Academy 2015

GEFÖRDERT VOM



The Global Young Academy gratefully acknowledges funding by the Federal Ministry of Education and Research in Germany.

A Word from the GYA Co-Chairs



Participants of the 5th International Conference for Young Scientists in front of the NRC building in Ottawa, Canada. Photo: Florian Wiencek / GYA

In the past decades, tackling the issue of sustainable globalization has become a real challenge for scientists in both low and high resource settings. The Global Young Academy (GYA) is committed to being part of the solution to this challenge. In particular, the Fifth International Conference of Young Scientists and Annual General Meeting (AGM), titled 'Innovation for Sustainable Globalization' demonstrated our enthusiasm in this area.

The conference brought together all key elements essential for knowledge creation and policy development. On the one hand, to promote good and actionable science, one needs to learn to tackle the right issues through the identification of knowledge gaps and current policy drivers. On the other hand, researching the right issues is not the end of the task. To promote scientifically sound policy for sustainable development, open and iterative communication between scientists,

policy makers, and community stakeholders is essential.

With that in mind, we have the honour to present our AGM 2015 report. It was a dynamic, highly interactive meeting with current and new members of the Global Young Academy and esteemed guests. Our delegates came from 30 countries. The AGM was a veritable crucible, strengthening continued effective cross-discipline collaborations, spurring the creation of new initiatives, such as the themed Working Groups (WGs), and fostering connections and increased understanding between young scientists and policy makers. For example, after meeting

young 'Do-It-Yourself' (DIY) scientists at the Science Fair Hack at the National Research Council of Canada, GYA members engaged in discussion with scientists who now serve as Canadian Members of Parliament.

This AGM would not have been such a success without the dedicated support of the Local Organizing Committee, the GYA managing office, the GYA AGM Program Committee, and our kind sponsors. We wish to thank everyone for making this wonderful meeting happen and we look forward to continuing our great projects in order to move the GYA forward in the coming years.

Eva Alisic (Australia)

Orakanoke Phanraksa (Thailand)
(GYA Co-Chairs)

GYA Co-Chairs Eva Alisic (Australia) and Orakanoke Phanraksa (Thailand). Photo: Florian Wiencek / GYA



Executive Summary

A profound spectrum of social, technological, political and economic forces is fundamentally transforming our lives. Whether dealing with pressing and interconnected issues of climate change, ageing populations, social injustice or food security, one thing is clear: the need to develop, connect, and mobilize the next generation of innovative researchers who can help lead us to sustainable globalization is more urgent than ever.

The Fifth International Conference of Young Scientists and Annual General Meeting (AGM) of the Global Young Academy (GYA) was correspondingly

themed **Innovation for Sustainable Globalization**. The high-energy event brought together leading young scholars from around the world to share findings, advance ideas and build the interdisciplinary relationships that will be needed to create innovation for sustainable development now, and well into the future.

The GYA Conference and AGM 2015

This year's event brought together 112 participants from 25 to 29 May 2015 at the Fairmont Le Château

The hotel-lobby of Le Château Montebello invited the participants to work and discuss also after the official schedule ended. Photo: Shoji Komai / GYA



Montebello in Quebec, Canada, less than an hour's drive from the nation's capital in Ottawa, Ontario. The prestigious and historic complex, which has hosted G7 and NATO summits, is situated on 65,000 acres of wildlife sanctuary and provided attendees from 30 countries around the world with an archetypal 'Canadian experience' during their stay.

The five-day event was comprised of 70 young scientists, from 30 countries across 6 continents, including 20 new members inducted at the

opening session, a dedicated group of volunteers and supporters, as well as 26 outstanding representatives of Canadian and international science management and policy. Among this latter group was former Co-Chair of the IAP - the Global Network of Science Academies Howard Alper, who gave an opening address on 25 May on behalf of the IAP, the event's main donor. The meeting was kindly supported by various additional donors and also received generous in-kind conference services support from Mitacs (<http://bit.ly/1NeqF1q>).

New Members 2015

The Global Young Academy warmly welcomes all its new members!



A day in the capital: thematic highlights

On 26 May the event centred on the Conference theme. GYA members and their guests travelled to the nation's capital, Ottawa, to meet Canadian 'Do-It-Yourself' (DIY) scientists from the burgeoning 'Maker Movement' at a dynamic Science Fair Hack organized by GYA member Andrew Pelling and his team at the National Research Council of Canada (NRC). It was an exciting opportunity for members to engage with young Makers comprised of a diversity of ages, genders and ethnicities from local universities, high schools, and even elementary schools. Members not only got to see the young inventors in their element, tackling globally relevant issues using exciting new technologies, but to also provide them with feedback on their inventions and new ideas for their future work.

The Science Fair Hack was a perfect way to instantiate for members and guests alike the GYA's commitment to sustainable innovation. Challenged by a pervasive culture of risk aversion that has widely permeated organizational cultures around the world, the GYA must continue to find new ways to leverage and support the massive intellectual capital that is operating within movements like the Maker/DIY communities. Our ability to do so will determine our legacy as the voice of young scientists around the world—what is nurtured 'in the garage' today

will lead to some of the most significant innovations of tomorrow. This subject is explored in depth in this report in the section **“DIY Science: Innovation in an age of risk and uncertainty”**.

Following the fair, members were given the opportunity to engage in a thoughtful address and discussion by Canadian Members of Parliament Kirsty Duncan and Kennedy Stewart on the topic of **“Leaving the ivory tower: making the transition from research to politics”**. A major takeaway, for which GYA members gave the MPs a standing ovation, was that researchers need not fear abandoning cherished skills and values in a transition to public life. Rather, academics may bring the very attributes that society needs in much greater measure in the pursuit of sustainable globalization.

Her Majesty Queen Elizabeth II's representative in Canada, His Excellency David Johnston, Governor General of Canada, then addressed the participants with a speech titled “The importance of innovation and its challenges and opportunities” (for full text, see <http://bit.ly/1Nse1QU>). Young scientists have a special responsibility to lead in this area, he suggested, and must be willing to “break down borders” and share knowledge freely to encourage new generations of innovators. By doing so, His Excellency insisted that not only the answers provided by young researchers, but the methods used in arriving at them, have the potential

to **“bring the world closer together.”** This last message inspired a lively discussion after the address and brought together the events of the morning in calling to attention the potential for future young scientists to contribute to current global challenges.

During a dinner at the NRC, GYA co-founder Gregory Weiss (USA) inspired participants with a motivating speech on the subject of ‘going viral’ with one's work and findings. He detailed his famous use of a demonstration on how to ‘unboil’ an egg in order to explain and promote his research findings on new methods for speedier cancer treatments. Gregory was quick to emphasize that it was a GYA-related trip to Australia that allowed him to meet Australian colleague and chemist Colin Raston, with whom the ground breaking research was conducted.

Science Sessions and Interactive Panels

Back at Montebello, building on the previous day's events at the NRC, Luc Lalande, Director of the Entrepreneurship Hub at the University of Ottawa, moderated a session between several active members of the Maker Movement in Canada including Jessie MacAlpine (University of Toronto), Connor Dickie (Synbiota Inc), Kathrina Yambao (Public Health Agency of Canada), David Pantalony, (Canada Science and Technology Museum), Remco Volmer (Lead Organizer, Ot-

tawa Maker Faire) and Hanan Anis (University of Ottawa). Panellists were chosen for their unique contributions and involvement in the Maker and DIY movement; their fascinating perspectives on innovation in Canada led to several lively roundtable discussions where all attendees (GYA members and non-GYA guests) dissected and explored the panel's themes from a litany of angles which were later codified online (to access this information, please visit <http://bit.ly/1ktcqP3>).

Gordon McBean, President of the International Council for Science (ICSU), then delivered an informative talk to conference participants about the Future Earth research initiative on global sustainability which, as participants discovered, was a model for how to engage local stakeholders and partners in a multiplicity of co-relations. The internationally recognized meteorologist and climate change expert also encouraged young scientists to practice foresight when planning international research collaborations and networks, with a view to negotiating challenges and maximizing opportunities in such endeavours. A subsequent panel discussion with GYA members Abdeslam Badre (Morocco), Lekelia Jenkins (USA), and Sabina Leonelli (UK) explored the esteemed advice that was given—particularly the many issues that can and do arise in interdisciplinary collaborations and intercultural relations. In an innovative spin on previous years, the 2015 Science Sessions, titled “Science Policy and Globalization,” and “Science and Technology” provi-



Working Groups

Photos: top, middle left & bottom: Shoji Komai / GYA ; middle right: Florian Wiencek / GYA

ded a successful format for GYA members to present their cutting-edge research and findings in the popular TED-style. Chaired by Abdeslam Badre and Gregory Weiss, respectively, the new style connected people and ignited ideas in a fast-paced and creative forum where globalization, policy development and pushing technology to the limit resonated as topics of strong shared interest and concern amongst GYA members. Thomas Edison E. de la Cruz (Philippines) and Lekelia Jenkins (USA) emerged victorious from the arena with symbolic prizes as winners of the afternoon's best talks.

The General Assembly and Working Groups

The annual GYA Conference and AGM is the Academy's flagship event, providing a unique intellectual and preparatory platform for members from around the world to meet in person and work face-to-face on the goals of our international organization. It also provides members with the opportunity to implement fundamental constitutional and organization requirements such as selecting leadership and developing major policy positions that reflect the unique perspective and consensus view of young scientists around the world.

The last day of the event was dedicated to such internal matters and the election of new leadership, where members elected Eva Alisic (Austra-

lia) and Orakanoke Phanraksa (Thailand) as Co-Chairs to lead the Global Young Academy. Further elected into the 2015-2016 Executive Committee (EC) were Abidemi Akindele (Nigeria), Yusuf Baran (Turkey), Ghada Bassioni (Egypt), Anna Coussens (South Africa), Fridah Erastus (Kenya), Rob Jenkins (UK), Mari-Vaughn Johnson (USA), Moritz Riede (UK) and Wilfred van der Wiel (NL).

Preceding the conference on 24-25 May, leadership training was provided for the heads of GYA Working Groups (WGs) with a view to improving the collaboration inside working groups. The training facilitated the presentation of new overarching Themes for GYA activities (Research Environment, Science and Society, and Science Education and Outreach) as well as ongoing projects at the start of the conference. GYA members had ample opportunities throughout the conference to develop these projects and new initiatives. Presentations were given on the last morning of the AGM on 29 May regarding the proposed projects for 2015-16.

In addition to this report, the GYA will publish photos of the conference as well as all **"follow-up actions"** related to the conference and position statements online: <http://bit.ly/1RvNwJz>.

DIY Science: Innovation in an age of risk and uncertainty

Science and innovation are intrinsically valuable. They expand the horizons of human understanding and can help lead us through the increasingly shared, complex and multi-faceted challenges of our time.

However, a pervasive culture of risk aversion has widely permeated organizational cultures in corporate, governmental and academic structures around the world. Although the causes of this phenomenon are numerous and complicated, one thing is clear—innovation suffers dramatically in such risk-averse environments.

We therefore find ourselves facing the crucial challenge of helping to foster and create organizational cultures that not only support and promote innovation and risk-taking, but do so in the most effective and efficient manner. To keep the heart of innovation and scientific endeavour beating strongly, we have to understand where innovation comes from, how to harness it, how to support risky ideas, and how to rapidly translate those ideas into action.

The world's ability to capitalize on its largely citizen-led Maker and DIY movements will be a critical constituent

of our future prosperity and wellbeing in the face of uncertainty. The Maker culture is a technology-based DIY field, often using electronics, robots and 3D printing, where recipes and instructions are shared in an open-access spirit. Standing in stark contrast to the backdrop of decreasing innovation and increasingly risk-averse cultures in academic, governmental and corporate spaces, these movements are characterized by the sheer excitement of enthusiasts engaging in science and technology in their homes, warehouses and Makerspaces. Makers and DIY scientists tend to be much less inhibited when it comes to innovation and risk-taking, and the real-world results that are coming from their work is a testament to this trait.

The Maker/DIY movement is global and, with the development of open source technology, medical devices and science equipment, has huge potential to dramatically impact how science can be carried out in both developing and developed countries. The low cost of 3D printing, open source computers and microcontrollers—[Raspberry Pi](#), [Arduino](#), [pcDuino](#), [Galileo](#) and [Pinoccio](#), to name a few—are in fact facilitating the development of inexpensive, innovative pro-

jects by school children, high school students and adults alike around the world. Makers have developed low-orbit satellites, DIY prosthetics, robotics, complex lab equipment and genetically modified organisms for environmental clean-up—and this is just the beginning.

One of the most well-known examples of such innovative directions is the development of the OpenPCR. A PCR machine is a key piece of technology required for DNA replication and sequencing and typically costs around US \$10,000. However, with OpenPCR all plans, codes and hardware are published online and devices can be built for under \$100. In fact, many pieces of laboratory equipment can now be 3D-printed and an entire laboratory can be built in your own home at very low cost.

While Apple, Hewlett-Packard, Microsoft and several other large corporations all began in the so-called garage, and were responsible for the information technology revolution, the massive intellectual capital currently operating 'in the garage' is still largely unacknowledged and underused by established organizational structures. Yet it is abundantly clear that meaningful scientific innovation by citizen labs and innovation spaces not only can occur anywhere on the globe, but already are occurring. From popular participatory action science research initiatives such as Bumble Bee Watch, EyeWire and Old Weather, to game-changing new tech like Oculus Rift's

virtual reality gear and 3D printers (both former DIY start-up companies), DIY and citizen science are having an immediate and evolving impact on science, technology and society.

It is imperative that we understand what is happening in the garage today. The prodigious growth of technical scientific capabilities beyond accredited labs poses a new ethical frontier that organizations like the GYA will need to explore thoroughly in the pursuit and support of such innovative directions. As the saying goes, with greater power comes the need for greater responsibility, and the Maker movement is certainly no exception.

The publically accessible events of the 2015 GYA AGM in Ottawa, gave an opportunity to link diverse local communities from the DIY movement with leading young academics and leaders from industry and government bodies. This event created an exciting intellectual forum where ideas that will help shape the way forward were shared and rigorously debated to further tap the innovation potential that is growing in our Makerspaces, warehouses and, yes, even our garages.

| Photo: Florian Wiencek / GYA



Programme Highlights I

National Research Council, Ottawa, 26 May 2015



GYA member Borys Wrobel testing a DIY VR-device at the Science Fair Hack. Photo: Dan Gamache / NRC

As the seat of federal government, national agencies and numerous international organizations, the national capital of Ottawa is a collaborative nexus where people come together from all over the world to share a diversity of perspectives on pressing global issues. In keeping with the 2015 GYA AGM's theme of **Innovation for Sustainable Globalization**, this was a fitting setting for GYA members to take in a day of unique and exciting activities at one of Canada's national institutions, the National Research Council of Canada.

Science Fair Hack

One of the highlights of the conference program was a highly anticipated Science Fair Hack held in the NRC's grand reception hall. Organized by Ca-

nadian GYA member and conference co-chair Andrew Pelling and his team, in collaboration with Director of the Entrepreneurship Hub at the University of Ottawa, Luc Lalande, the public event allowed GYA members to explore the many incredible innovations growing out of the burgeoning Canadian DIY science and Maker movement.

Bringing together an impressive group of elementary, high school and university students, the GYA Science Fair Hack showcased some of Canada's most creative and forward-thinking science projects, from the 3D printing of prosthetics, to bio-hacking and bio-art. Young Canadian scientists had the opportunity to showcase their projects to international scientists, and likewise GYA members had the opportunity

to freely engage one-to-one with the inventive local school children and university students. This format turned the traditional science fair on its head and resulted in a lively exchange of ideas being bounced back and forth for possible future directions and work. Andrew Pelling shared the following thoughts on this special dynamic with various media representatives who attended:



“The DIY and Maker movement is challenging our very notion of what innovation is. It's democratizing science, and engaging indigenous, and often invisible, communities—communities whose shared contributions, interactions and ideas have made me a better scientist.”

— Andrew Pelling (Canada)

GYA members were treated to Makers varying dramatically in terms of age, ethnicity, gender and sophistication. For example, Daniel McInnis, an Ottawa-based high school student, demonstrated the system he invented for computer-assisted bone transplant surgery using a US \$500 scanner that can replace an \$80,000 scanner. Groups such as Maker Junior presented programming and inventions from several elementary students, while [Bricobio](#), a Montreal-based biology laboratory that is open to public participation, demonstrated some of their open biology hacks

developed by university students.

GYA members were not only excited to interact with the young scientists and their inventions, but also to know that they were supporting young Canadian innovators by giving them a platform to build and share their skills. After the event concluded, Science Fair Hack organizer Andrew Pelling received a thank you message from Susan J. Lee, a participating school teacher from Ottawa's J.H. Putman Public School, thanking him for the “tremendous experience” the students received in attending the Science Fair Hack:



“Your GYA members were so kind and showed such interest in our projects. Being scientists, they had great questions that made my students think. After the fair, the kids were excitedly comparing the nationalities of all the people they met. It was a truly authentic experience for them. Perhaps you have inspired some future scientists.”

— Susan J. Lee (Teacher, J.H. Putman Public School)

These sentiments, while inspiring and gracious, also underscore a challenge that has clearly now been put before GYA members—how can we as early career researchers best create organizational cultures that support and promote innovation and risk-taking by investing in and supporting young innovators?



Kirsty Duncan (left), Kennedy Stewart (middle) and Jeremy Kerr (right) at the session „Leaving the Ivory Tower“ at NRC (Ottawa, Canada). Photo: Florian Wiencek / GYA

There are many opportunities for early career researchers to work closely with those outside of traditional academic/industrial spaces to help translate local innovations into global impacts. Understanding where innovation comes from, how to harness it, how to support risky ideas, and how to rapidly translate risky yet worthy ideas into action are key questions that will need to be addressed as we move forward together.

“Leaving the Ivory Tower: Making the transition from research to politics”

A conversation with Members of Parliament Kirsty Duncan and Kennedy Stewart moderated by Jeremy Kerr (GYA)

Following the buzz of activity from the afternoon’s dynamic Science Fair Hack, GYA members convened in the NRC’s main auditorium for an enriching session with two Members of Parliament who, having previously worked in academia, were able to

share their experiences of entering politics and thus speak directly to the keen interest of GYA members to contribute to policy development. The presentations gave GYA members a rare insight into the daily lives of politicians and a great deal of food for thought: What are the main differences between working in academia and in politics? What kind of additional skills are necessary for an academic moving into politics?

Kirsty Duncan and Kennedy Stewart spoke directly to the heart of these and other pressing questions by honouring GYA members with candid presentations of their personal journeys from academic to public life, as well as their subsequent experiences in politics. By way of introduction, Kennedy Stewart noted that he is a political scientist and tenured faculty member in Simon Fraser University’s School of Public Policy, explaining that he has also been a very active champion for science and scientific integrity as a Member of Parliament since 2011. Kirsty Duncan likewise spoke of her many years as a scientist in cli-

matology, both inside academia and with the Intergovernmental Panel on Climate Change (IPCC) (she shares in the IPCC Nobel Peace Prize for 2007).

Kennedy Stewart identified some of the key challenges in moving between academic and political spheres explaining that while decisions in the ivory tower are often purely academic matters, decisions taken in politics rely on less information and yet have far more impactful consequences. He added to this by stressing that entering the political arena offers a researcher a way to make a much bigger impact than would likely be possible from purely within the ivory tower. However, he also highlighted the need to accept having your personal life made public once you enter politics.

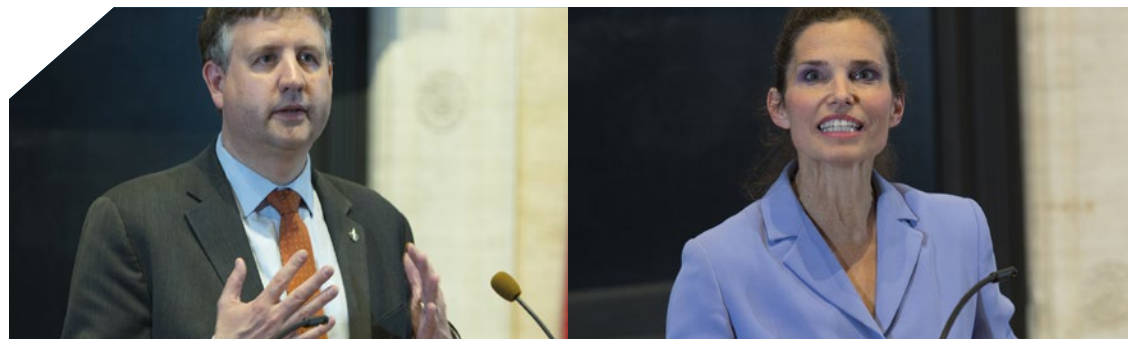
Kirsty Duncan proceeded to reflect on the experiences she had as a young female scientist leading an international expedition team of senior male researchers which, she revealed, included many instances of “shocking sexism”.

She talked about her undying passion for her research and mentoring roles and shared how her academic experience informed her firm approach to evidence-based policy.

While both Members of Parliament have served their communities, it bears mention that their ‘communities’ extend beyond political ridings and reach well into the academic world. Among their many other contributions, they have worked tirelessly to improve science integrity through sustained efforts in Parliament, and by speaking across Canada and to international gatherings such as the 2015 GYA AGM.

In these respects, Kirsty Duncan and Kennedy Stewart are exemplary models for GYA members of how the transition from academic to public life can work. If pressed to articulate a single lesson that sums up their presentations at the 2015 GYA AGM, it is perhaps most fairly this:

MPs Kennedy Stewart (left) and Kirsty Duncan (right) talking in the session „Leaving the Ivory Tower“. Photo: Dan Gamache / NRC





His Excellency David Johnston, Governor General of Canada, arriving in front of the NRC in Ottawa, Canada.

Photo: Florian Wiencek / GYA

Moving from academic to public life does not mean that one must leave one's mind, training, or heart behind. Rather, it is perhaps the very disposition and set of experiences forged in the pursuit of innovative and meaningful research that society needs from young scientists in much greater measure.

Keynote Address

His Excellency David Johnston, Governor General of Canada

The addresses by Members of Parliament Kirsty Duncan and Kennedy Stewart were directly followed by a special speech by Her Majesty Queen Elizabeth II's representative in Canada, His Excellency David Johnston, Governor General of Canada. Welcome and introductory statements were provided by the president of the National Research Council, Mr. John R. McDougall, while former GYA Co-Chair Rees Kassen served as Master of Ceremonies. With what many might note as a

characteristically Canadian nuance of ceremony and informality, the Governor General began his speech with the touching story of Sebastian Chavarria, a six-year-old Ottawa boy whose life was significantly changed by the DIY science movement. Citing Chavarria's story as an inspirational example of what can happen when compassion and social conscience "mix with science, engineering and innovation", His Excellency Mr. Johnston highlighted the transformative power of the "curiosity" of young innovators:

"Sebastian Chavarria, who lives right here in Ottawa, was born with health issues that, among other things, left him in need of a prosthetic hand. Years ago, his parents would have had to buy a new prosthetic every year at a cost of thousands of dollars just to keep pace with their son's natural development. But that is changing. Students at the University of Ottawa took on the challenge of designing and building a workable, quality prosthetic, at a reasonable cost. They used the 3D printer technology that is still in its relative infancy and an important tool of the 'do-it-yourself' movement. The winning design was created by students Shannon Lee and Robert Rayson."

It is worth noting that Shannon Lee and Robert Rayson, the creative pair of second-year University of Ottawa biomedical engineering students mentioned by the Governor General, were also distinguished guests at the Science Fair

Hack held earlier in the day. Many GYA participants had been suitably impressed by their innovative design and the use of 3D printing to address a complex task in a sustainable way.

Referring to the 2015 GYA AGM's admirable and timely conference theme, Innovation for Sustainable Globalization, His Excellency described the unrivalled opportunities, in scope and impact, associated with innovation. He pointed out that powerful new ideas often cause us to see the world in new ways, noting how the invention of the printing press eventually led to the discovery of the microscopic world by way of the development of better lenses for reading glasses.

His Excellency underscored the challenges that innovation can bring and, after asking how the 'new' will impact "how we exercise or drive or communicate or raise our children or simply live side by side", he suggested that in the spirit of E.B. White we would be well-served by "seeing things whole." Sustainable globalization thus begins,

according to the Governor General, with the "search for answers and knowing that we are responsible for finding them together."

As was conveyed throughout his speech, His Excellency reasserted his conviction that young scientists have a special responsibility to lead in this frontier by being willing to "break down borders, share our knowledge widely and freely, and encourage new generations of innovators." By doing so, he concluded that our answers and how we arrive at solutions as young innovators "has the potential to bring the world closer together."

An animated discussion followed the address, with His Excellency returning, in spirit and manner, to his previous professorial role after giving the floor to GYA members to ask questions. Two main themes emerged from this discourse. The first was on the crucial role that international experience serves in research and education for adding value to one's country at the national level. The second theme centred fittingly on the

His Excellency David Johnston, Governor General of Canada, addresses the GYA members and distinguished conference participants. Photo: Dan Gamache / NRC





GYA alumnus and former GYA Co-Chair Gregory Weiss sharing his insights into successful science communication. Photo: Florian Wiencek / GYA

importance of integrating disciplines for meeting the challenges of global sustainability. His Excellency exited the auditorium to a heartfelt standing ovation by GYA members.

The full text of the Governor General's speech and photos from the event are available online: <http://bit.ly/1kw9VLU>.

“Going Viral With Your Science”

Gregory Weiss (USA)

The eventful afternoon at the NRC concluded for GYA members with an informative dinner speech by GYA co-founder and first Co-Chair Gregory Weiss (USA) on how to best harness media attention when promoting one's scientific results. Gregory Weiss knows a thing or two about garnering media coverage. When the biochemist and his colleagues developed a new method to

quickly restore molecular proteins, he used the startling example of ‘unboiling’ an egg to effectively illustrate his novel method capable of detecting cancer at an early stage to global media.

Gregory talked about how his simple egg demonstration unleashed a media storm which resulted in his research strategy and findings ‘going viral’ and receiving worldwide media coverage. Known for his passion for building bridges between scientists in developed and developing countries, it is worth noting that Gregory never fails to mention that his famous egg experiment was conducted with Australian chemist Colin Raston, a collaboration resulting directly from contacts made through the GYA.

You can read more about the popular egg unboiling experiment at: <http://bit.ly/1PaknpE>.



Photos: Florian Wiencek / GYA

Programme Highlights II

Chateau Montebello, Quebec, 27 May 2015



Accomplished members of the Canadian Maker movement discussing during the panel „The Changing Map of Innovation“. Photo: Florian Wiencek / GYA

Panel: “The Changing Map of Innovation”

Following on from the day at the NRC, once back at Montebello, Luc Lalande (Director of the Entrepreneurship Hub, University of Ottawa) moderated an expert panel discussion between several well-known and accomplished members of the Maker movement in Canada who are tackling today's and tomorrow's increasingly complex and interconnected global issues. Many representatives of Canadian science and policy institutions also joined GYA members for the day's events.

Panellists were chosen for their leadership and unique perspectives in the most active DIY and Open Science communities and companies of the moment. They deftly explored the policy-making consequences of the mo-

vement in the areas of public safety, platform development to encourage and foster DIY innovation and the historical context in which innovation takes place in Canada. The panel included the following distinguished guests:

Hanan Anis, University of Ottawa, Co-founder and Director of the uOttawa Makerspace

Connor Dickie, Co-founder and CEO, Synbiota Inc, makers of the “DNA Tinker Kit”

Jessie MacAlpine (University of Toronto), Canada's Top 20 Under 20 Recipient

David Pantalony, Curator of Physical Sciences and Medicine, Canada Science and Technology Museum

Remco Volmer, Managing Director, Artengine and Lead Organizer, Ottawa Maker Faire

Kathrina Yambao, Senior Policy Analyst in Biosecurity Programs and Planning, Public Health Agency of Canada

A full description of the panellist biographies and research activities can be found online: <http://bit.ly/20x0hK1>.

Following the “Changing Map of Innovation” panel, all attendees were invited to participate in several industrious roundtable discussions on topics relevant to the panel, mixing up GYA members, guests and panellists. The goals of the interactive session were to leverage the impressive intellectual capital present at the conference as well as to further develop and finally share online the perspectives expressed in the roundtable discussions. Facilitators for each topic summarized the discussions at the end of

the session and five thought-provoking themes emerged from the roundtable exercise:

- DIY Science: Is It Time for Regulation?
- Maker-DIY Learning: A Better Way to Encourage STEM Education?
- Will the Open Science Movement Disrupt the Science Publishing Model?
- What Impact Can Citizen Science Have on Public Attitude Towards Science in Society?
- The Global Maker Movement and Humanitarian Innovation: What is the Potential?

Visit medium.com to read full notes on the morning panel session in Montebello and/or to participate in the session's ongoing forum: <http://bit.ly/1KZnpVX>

Gordon McBean (ICSU) presenting the Future Earth Initiative. Photo: Florian Wiencek / GYA



The Future Earth Initiative and Panel Discussion

Gordon McBean (ICSU), Abdeslam Badre, Lekelia Jenkins, Sabina Leonelli (GYA)

Following the morning's workshop, internationally recognized meteorologist and climate change expert Gordon McBean spoke to conference participants about the Future Earth research initiative on global sustainability. Future Earth is a ten-year international research initiative aiming to develop and provide the knowledge and support required to accelerate transformations towards global sustainability in the coming decades. Gordon McBean emphasized that Future Earth distinguishes itself from the traditional approach of a top-down science committee by striving to co-design, co-produce, and co-deliver with engaged local stakeholders and partners.

Referring to his role as President of the International Council for Science (ICSU), Gordon McBean also made a strong witness for the many opportunities, challenges and potential perils that present themselves in interdisciplinary international research collaborations and networks.

On this matter, panellist Sabina Leonelli (UK) noted that interdisciplinary collaborations that purport to involve the social sciences and the humanities sometimes imagine that they are external to the "true science". She argued

that this mind set can be detrimental to the development of insights and technological solutions that address global challenges and concerns in a sustainable fashion.

Panellist Lekelia Jenkins (USA) raised several issues related to one of the core principles of Future Earth, namely that involving local partners in co-design and co-production of knowledge. More specifically, she called attention to the difficulties of identifying local leadership by depending on formal credentials that can marginalize non-credentialed leaders. She also highlighted the intercultural differences inherent in framing problems.

Panellist Abdeslam Badre (Morocco) explored the challenges relevant to translating scientific evidence into implementable policy, noting that barriers to policy development are not always strictly scientific, but often social and political as well.

Pointing to the potential for involving GYA activities in Future Earth initiatives, Gordon McBean underscored the international hub's early successes in marshalling resources towards its priority areas.

The session concluded with a discussion between panellists and conference participants moderated by Canadian GYA member Robert Leckey. The discussion confirmed the potential for positive developments through international, interdisciplinary scientific collaboration, as well as the abiding

challenges in crossing boundaries in the service of innovation for sustainable globalization.

Science Sessions

Science Sessions are an established and important program part of every International Conference of Young Scientists and GYA Annual General Meeting, allowing exciting opportunities for GYA members and AGM guests alike to interact and exchange ideas.

The 2015 Science Sessions, titled "Science Policy and Globalization," and "Science and Technology" provided a unique platform for GYA members to present their cutting-edge research and findings. Building on previous years' experiences, this year's Science Sessions introduced the popular TED-style and limited each speaker's presentation to a maximum of seven minutes for presenting their research and interacting with the audience in a concise and engaging fashion. The two Science Sessions were introduced by conference co-chair Federico Rosei and chaired by Abdeslam Badre

and Gregory Weiss. While the first session covered a wide range of topics and research projects, all of them found a common orbit around the concepts of globalization and policy development. The second session had a different flavour and was geared more toward experimental studies aimed at pushing the technological limits of innovations. The high quality of the papers, married to the eloquent public speaking skills of the speakers, made it difficult for the Science Sessions committee members—Oded Hod (Israel), Alice Matimba (Zimbabwe), Adewale Adewuyi (Nigeria) and Abdeslam Badre (Morocco)—to select the two best talks for a symbolic prize. The accolades eventually went to two delegates, Thomas Edison E. dela Cruz (Philippines) and Lekelia Jenkins (USA); with talks entitled "Fungal Biodiversity for Sustainable Development: Assessing the Diversity and Bioactive Metabolites of Fungal Endophytes Associated with Indonesian and Philippine Mangroves" and "Choosing Innovative Partners to Save the World's Fisheries With Technology" showcasing the diversity of globally relevant research GYA members are conducting.

Anna Coussens (South Africa) presenting at the AGM 2015. Photo: Florian Wiencek / GYA



The Global Young Academy: An evolving organization



The newly elected Executive Committee gathers in the garden of Le Château Montebello. Photo: Florian Wiencek / GYA

Newly elected Executive Committee

The internal meeting of the GYA General Assembly took place during the last day and a half of the conference. GYA members elected their new leadership, following provocative addresses by candidates on the previous night. For the first time, the election brought

to the fore of the Academy two female Co-Chairs. Eva Alisic (Australia) was re-elected as Co-Chair and Orakano-ke Phanraksa (Thailand) was elected to the position of Co-Chair for the first time. Further elected into the 2015-2016 Executive Committee (EC) were Abidemi Akindele (Nigeria), Anna Cousens (South Africa), Fridah Erastus (Kenya), Ghada Bassioni (Egypt), Mari-Vaughn Johnson (USA), Moritz Riede

(UK), Rob Jenkins (UK), Wilfred van der Wiel (Netherlands) and Yusuf Baran (Turkey). With a 6:5 female: male ratio and members from 5 continents, the GYA executive is a representation of the diversity of its members, and a product of a well-designed and transparent voting process. Following their elections, new EC members convened with the outgoing EC members in order to benefit from their experience and discuss the focus of the year ahead.

Introduction of Activity Themes

In order to improve the collaboration of members in working groups, both at the AGM and beyond, leadership training with a focus on leading virtual teams was provided for the heads of GYA Working Groups (WGs) preceding the conference on 24-25 May. Participants worked on issues such as leadership characteristics and maintaining motivation and enthusiasm post in-person meetings. The training also helped prepare group heads to present the new overarching Themes for GYA activities—

Research Environment, Science and Society, and Science Education and Outreach—as well as ongoing projects at the start of the conference. Choosing one of these Themes in which to become active, the GYA members had ample opportunities throughout the conference to develop these projects and new initiatives.

The projects proposed to be followed in the year 2015-16 were presented on the last morning of the AGM on 29 May. The trainers will follow-up with WGs leaders via Skype debriefs in the year ahead.

Members adopted a new themed structural framework for GYA activities at the 2015 GYA AGM. Following a decision by the General Assembly in 2014, the new activity structure was developed by the Executive Committee to improve the visibility and coordination of GYA Working Groups (WGs) and projects.

All Themes have two leaders, one from the WGs and one from the EC, that will decide on the activities and projects of priority in the year ahead. During the

Meeting of members working in a particular activity theme during the Annual General Meeting. Photo: Florian Wiencek / GYA



Conference members of Themes and WGs met in numerous sessions, to garner new ideas, work on current plans and develop strategic plans for the year ahead, with timelines and actionable outcomes. The WG leads presented their achievements and steps forward for the next year in the last session of the Conference.

The following are brief descriptions of the GYA's new Activity themes and current Working Groups:

Science and Society

Raising the voice of young scientists from around the world on issues of relevance to our global world is one of the key goals of the GYA. This Theme includes working groups and projects that are using scientific evidence to support decision making as well as activities that are addressing emerging issues of interest to GYA scholars and the broader research community. Common to all is that they lie at the interface between science and policy with the aim to further society.

Working Groups and projects in this Theme include

- Invisible Worlds
- Climate Change
- Solid Waste Management and Green Economy
- The Importance of Fundamental Research

Visit the following webpage to learn

more about current Science and Society projects: <http://bit.ly/1WA4s2X>.

Research Environment

Capacity building of young researchers is one of the Academy's core interests and GYA members are eager to identify both opportunities and challenges early-career researchers face around the globe, with a view to improving them. The Research Environment theme includes working groups and projects dealing with the conditions in which research inside and outside academia works. The activities range from science policy to open science.

Working Groups and current projects in this Theme include:

- Words of Wisdom – advice received from academic mentors
- Global State of Young Scientists (GloSYS)
- Women in Science
- Open Science
- Global Access of Research Software
- Optimising Assessment – Promoting Excellence
- African Science Leadership Program

Visit the following webpage to learn more about current Research Environment projects: <http://bit.ly/1PakwJD>.

Science Education and Outreach

Promoting science education has always been a core activity of the GYA, and members of the GYA believe very strongly that scientists need to do more to contribute to society than simply advance their individual research agendas. The Science Education and Outreach theme covers GYA activities and projects that work to inspire and educate people about the value and possibilities of science.

Working Groups and current projects in this Theme include

- Measuring Excellence in Science Engagement
- Young Scientist Ambassador Program
- Expedition Mundus – globalizing a science game

Visit the following webpage to learn more about current Science Education and Outreach projects: <http://bit.ly/1iDm1le>.

Transformative Potential: Reflections on GYA culture and gender equality

“My experience at the 2015 GYA AGM in Canada was exhilarating. One of the most striking aspects was the openness and sense of equality. Here were more than 70 members from different backgrounds, cultures and economic

levels, joined by two common factors—being researchers and being committed to a global view that seeks to maximize opportunities for all. This shared vision seemed to cut through many other potential sources of conflict and made for an environment where everyone had the opportunity to be heard and feel comfortable in speaking up. It was an unusual experience to be asked not what I know in my area of expertise but what I think about things far beyond my scientific endeavours. The valuing of opinions from all made this a freeing environment.” — Anina Rich (Australia)

After attending her first GYA International Conference and Annual General Meeting as a new member this year, Anina Rich of Macquarie University shared this thoughtful feedback with GYA leadership and AGM organizers. In fact, Anina was so intrigued by her experiences and discussions with other GYA members during the AGM that she sent an email to other participants after the AGM. She asked them to share with her whether they also noticed differences in the 2015 GYA AGM compared to other conferences they have been to in terms of how comfortable they felt, for instance, in expressing their opinion or in approaching people.

In the enthusiastic responses she received, Anina identified three recurrent and common experiences of members attending GYA meetings that are different from those engendered at other meetings:



“ Within the GYA and at GYA meetings, members have an overall feeling of a true sense of equality and openness. They feel comfortable speaking up and being heard. Leaving a GYA meeting, members feel energised and inspired rather than drained. ”

— Anina Rich (Australia)

During discussions with her GYA fellow members Rieko Yajima, Rob Jenkins, Kai Chan and Karen Lorimer, Anina was moved to gather ideas about what specific aspects of the GYA environment might be responsible for contributing to these common experiences at GYA meetings. With a view to working out the specific factors that contribute to such a rewarding meeting environment so that all members could learn and apply the principles more broadly, there were five traits that appear to be characteristic of GYA meetings:

1. De-emphasized hierarchy with sense of shared authority

Although there is a clear structure to the organization, GYA members are at similar career stages and feel a shared sense of learning as a group—no one individual is perceived to be in possession of all answers or authority. This could naturally contribute not only to an environment where more people feel encouraged to speak up,

but also to a sense that answers to difficult questions will have to draw on multiple ideas and perspectives.

2. Dynamic leadership structure

A diverse group of people within the GYA are assuming leadership roles, whether as Co-Chairs, EC members, WG Leads, Selection Committee members, etc. This dynamic helps to transmit a bigger message that there are many ways to get your voice and ideas heard within a large group.

3. Cooperative spirit rather than competitive spirit

Social interactions are conducted in a cooperative spirit rather than in a competitive spirit. This is an interesting observation in itself given the high achievement of GYA members.

4. Openness to identify and counter-act biases

The willingness to examine underlying biases and an openness to do something about them is perhaps the most we can ask in moving towards an equal and fair world. The selection committee's review of their procedures was a great illustration of the GYA's commitment to this very trait.

5. Gender equality efforts and absence of ambiguity about social relationships

Having a high percentage of women attending the meeting—even from

areas where they are often underrepresented at science conferences—seems to encourage more women to feel they can, and perhaps even should, actively participate.

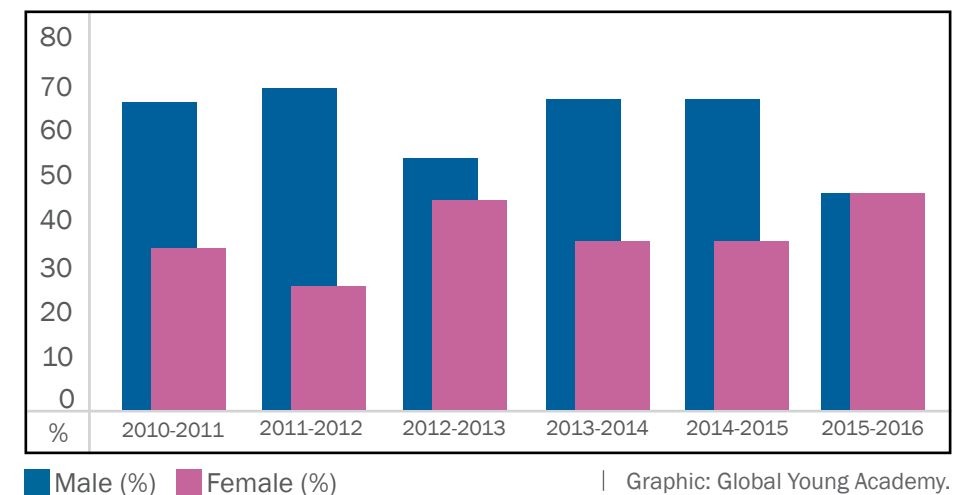
Another explanation is that the equality of voices as experienced at the meetings—and the observation that men in the group are engaged in gender equality efforts—rapidly calibrates expectations. Indeed, the GYA environment is such that, collectively, gender does not seem to be a factor of importance. In fact, whether virtual or face-to-face, communications within the GYA would seem, if anything, to reveal a strong and fundamental culture of mutual respect, free of bias, gender or otherwise. The gender mix of the Executive Committee and past and present co-chair elections would indeed appear to support this supposition.

The sense that there is a lack of social ambiguity in gender relations within the GYA may be more significant than it first appears. Firstly, it may lower barriers to self-disclosure and interpersonal connection thus allowing lasting friendships to become firmly established more quickly. Secondly, it might make for a forum in which members, and perhaps women in particular, feel more at ease and inclined to contribute than they would in other settings.

Culture and gender equality in organizations: The GYA model?

These may be some of the factors that create an environment at the GYA in which all members are listened to, heard and feel they can contribute with a sense of freedom and agency (power-to). Importantly, this is less about individual agency than it is of collecti-

Ratio of female and male members of the GYA Executive Committee by year



ve agency, born from the creation of a space naturally open to collective agency practices.

This environment fosters shared solidarity, which has the potential to be significantly transformative. Members are drawn from across a diversity of life circumstances. Simply moving members into more privileged social positions, which one could consider to happen when joining the GYA, is not required for the kind of empowerment that can be nurtured with shared power and authority. Rather, members can remain in a less privileged position—stemming from different regions of the world, with different gender structures and science systems—but still have access to a shared sense of power and authority. This is perhaps one of the most crucial underlying processes speaking to the transformative potential of the GYA.

The GYA might not only be incubating a model for gender equality, but also one for how people from different cultural backgrounds might work together. Members should be proud of this exciting and inspiring prospect.

The GYA as a source of future global leaders in science

As a global academy, the GYA is able to provide a vehicle for advancing research and engagement projects on an international scale. Not only does

this facilitate the discovery of global talent and collaborators, it also brings together formerly insular national networks in ways that are mutually beneficial. Some of our best products are indeed processes for developing collaborative projects. Appropriately, GYA output will soon include blueprints for the social interactions that are poised to become the mainstream of future decades.

The core values that foster the GYA's defining processes are clear:

Openness to ideas: The GYA nurtures new ideas. Members challenge each other to push for quality, originality, and excellence. This mode of working has been achieved by creating a safe, empathic environment which we are actively maintaining and promoting.

Collective achievement: The work of the GYA is not geared towards individual achievement. Instead, members work together on projects that none of them could undertake on their own, and for which the interests, expertise and resources are distributed across nations and across disciplines.

Fairness and diversity of perspectives: It is already established that diverse groups make better decisions¹. In some cases, it can take longer for individuals in diverse groups to trust each other, to blend expertise and to identify shared goals. However, in the longer term, broad diversity pays off by allowing the group to make progress on difficult problems. The GYA

provides its own working model for developing its diversity practices. Learning from failures as well as successes has allowed the organization to refine its internal processes and support the pursuit of ambitious goals.

Being a member of the GYA is a transformative experience. The Academy provides its members with opportunities to develop their skills in leadership, motivation, cultural awareness, and self-presentation. These opportunities include professional training², invitations to speak at high-level meetings and experience working alongside peers. The AGM and other GYA

¹ Cox, T. H., & Blake, S. (1991): Managing Cultural Diversity: Implications for organizational competitiveness. The Executive, 45-56, e.g. page 50.

² Professional training organized by the GYA includes: „Science Communication“ and „Collective

forums provide a safe and respectful space for members to practise and refine these critical skills.

Participating in GYA forums also embeds members in processes that they export directly to other groups, thereby spreading successful practice globally. These processes have no ready analogue, and generate insights that may not be available elsewhere. As members can apply these processes and insights for the rest of their long careers—and pass them on to students that they supervise and teach—the beneficial effects stand to be fast-acting and long-lasting.

Leadership“ at the AGM in Halle, 2013; „Conflict Resolution and Intercultural Management“ at the EC Meeting in Berlin, 2014, and „Virtual Teams Leadership“ at the AGM in Montebello 2015. In addition we support the Africa Science Leadership Program, see: <http://bit.ly/1LQeF8y>.

Members of the GYA are well prepared to become global leaders in science. Photo: Florian Wiencek / GYA





A speed-dating exercise fosters discussions and new ideas during the kick-off of the event. Photo: Florian Wiencek / GYA

On the unique environment of GYA Annual General Meetings:



“ I felt energized after meeting and working with a group of people who are passionate about making real change, who all have great and varied experiences to share and that they are happy to share, as there is an openness that does not occur at other meetings. We all share a love of research, and making an impact to better society, and as long as the GYA maintains this at its core I can only imagine all that we can achieve together. ”

— Anna Coussens (South Africa)



“ This is the only meeting where I feel like being part of something that really matters. It really helps me to achieve some different goals that bring me close to the very first motivation I had to become a scientist, to contribute to human knowledge and well-being. ”

— Tatiana Duque Martins (Brazil)



“ I was struck by the feeling of equality and the fact that we are all linked by research and service. I appreciated the depth of people’s commitment to these basic principles. I found that discussions happened pretty easily and I didn’t get the feeling that agendas were being pushed—which was a relief because there’s usually too much of that in normal conference setting. As someone from the Arts and Humanities, I think there’s much more that I and those in my associated fields can do to broaden the scope of the AGMs and I’m looking forward to the next AGM in

Turkey for this reason. What struck me, in a positive way, was how receptive people were to this. That was really encouraging. ”

— Karly Kehoe (Scotland)



“ It seems that we can talk about anything even though we have nothing in common except for being researchers. ”

— Mimi Hassim (Malaysia)



The Program

Day 0 Sun., 24 May 2015 EC/GYA WG Leaders

| | | |
|---------------|--|-----------------------------|
| 10:30 – 12:00 | Arrival of WG Leaders, EC Members and Staff (Shuttle from Montreal departing at around 11:00) | Château Montebello |
| 12:00 – 13:00 | Lunch | Restaurant Aux Chantignoles |
| 13:00 – 15:00 | EC Meeting | Québec Room |
| 15:00 – 15:30 | Coffee break | Mezzanine, Québec Room |
| 15:30 – 17:00 | EC Meeting GYA staff meeting LOC | Québec Room, Ontario Room |
| 17:00 – 18:30 | EC Meeting | Québec Room |
| 18:30 – 19:00 | Free time | |
| 19:00 – 20:30 | EC Meeting over dinner | Restaurant Aux Chantignoles |
| 20:30 – 22:00 | Free time | |

Day 1 Mon., 25 May 2015 GYA MEMBERS ONLY

| | | |
|--------------|-----------|-----------------------------|
| 07:00 – 8:30 | Breakfast | Restaurant Aux Chantignoles |
|--------------|-----------|-----------------------------|

| Day 1 | Mon., 25 May 2015 | GYA MEMBERS ONLY |
|---------------|--|--|
| 08:30 – 10:00 | WG leader training opened by Co-Chair Eva Alisic, Trainers: Charles Gordon and Joseph Mikac from Breakview Training Inc. | Canada Room |
| 10:00 – 10:30 | Coffee break | Mezzanine |
| 10:30 – 12:00 | WG leader training EC task groups | Canada Room Québec Room, Ontario Room, Alberta Room |
| 12:00 – 13:30 | Lunch/ Arrival of members | |
| 13:30 – 15:00 | WG leader training EC task groups | Canada Room Québec Room, Ontario Room, Alberta Room |
| 13:00 – 15:00 | EC Meeting | Québec Room |
| 15:00 – 15:30 | Coffee break | Mezzanine |
| 15:30 – 17:00 | WG leader training New members session - What to expect from the GYA and the AGM (Co-Chairs Eva Alisic & Sameh Soror) | Québec Room, Québec Room |
| 17:00 – 18:30 | Opening Session Welcome and opening by the GYA Co-Chairs Sameh Soror & Eva Alisic Welcome addresses Howard Alper on behalf of the IAP, Suzanne Fortier (McGill) and Andrew Pelling on behalf of the LOC Inauguration of new mem- bers & mingling exercises | Canada Room |

| Day 1 | Mon., 25 May 2015 | GYA MEMBERS ONLY |
|---------------|---|---|
| 18:30 – 19:30 | Dinner | Restaurant Aux Chantignoles |
| 19:30 – 22:00 | Presentation of GYA Focus Areas (FAs) and their current projects | Canada Room |
| Day 2 | | Open to the me- dia and to non- GYA members by Invitation only |
| 07:00 – 08:30 | Breakfast (7:30 start of Buddy-breakfast) | Restaurant Aux Chantignoles |
| 08:30 – 10:00 | 3 parallel FA Sessions to choose together the WGs/projects that each FA will focus on | Canada Room, Québec Room, Ontario Room, [Alberta Room] |
| 10:00 – 10:30 | Coffee break | Mezzanine, Québec Room |
| 10:30 – 12:00 | WG Sessions | Canada Room, Québec Room, Ontario Room, Alberta Room |
| 12:00 – 13:30 | Lunch | Restaurant Aux Chantignoles |
| 13:30 – 14:30 | Buses to Ottawa / Work- ing Groups on the bus Strict departure at 13:30 | |
| 14:30 – 16:30 | Science Fair Hack (continues into coffee break), Introduc- tion: Andrew Pelling (GYA) | National Research Council |

Day 2

Tue., 26 May 2015

Open to the media and to non-GYA members by Invitation only

| | | |
|---------------|---|--|
| 16:30 – 17:30 | Leaving the Ivory Tower: making the transition from research to politics' A conversation with the Honourable Michelle Rempel (Minister of State for Western Economic Diversification), Dr. Kirsty Duncan (Member of Parliament, Lib) & Dr. Kennedy Stewart (Member of Parliament, NDP); Moderator: Jeremy Kerr (GYA) | Open to the media and to non-GYA members by Invitation only |
| 17:45 – 18:00 | GYA and NRC leadership meeting the Governor General | National Research Council |
| 18:00 – 18:40 | Opening remarks and welcome by NRC President, John R. McDougall Address by His Excellency the Right Honourable David Johnston, Governor General of Canada Brief response GYA Co-Chair Sameh Soror Q & A with audience Closing remarks NRC President, John R. McDougall | National Research Council Master of Ceremony: Rees Kassen |
| 19:00 – 20:30 | Dinner & speech: Greg Weiss (GYA): "Going Viral with your Science" | National Research Council |
| 20:30 – 22:00 | Buses back to Montebello Working Groups | |

Day 3

Wed., 27 May 2015

Open to the media and to non-GYA members by Invitation only

| | | |
|---------------|---|---|
| 07:00 – 08:30 | Breakfast | Restaurant Aux Chantignoles |
| 08:30 – 10:00 | High-level Panel on 'The Changing Map of Innovation' Moderator: Luc Lalande, Executive Director of the Ottawa Entrepreneurship Hub Panellists: Jessie MacAlpine, young scientist, Canada's top 20 under 20 Hanan Anis, Director of the uOttawa Makerspace Connor Dickie, CEO of Synbiota Marianne Heisz, Director of the Office of Biosafety Programs and Planning, Public Health Agency of Canada David Pantalony, Curator of the Canada Science and Technology Museum Remco Volmer, Executive Director of Art Engine | Canada Room Master of Ceremony: Andrew Pelling |
| 10:00 – 10:30 | Coffee break | Mezzanine, Québec Room |
| 10:30 – 12:00 | Interactive sessions | Canada Room |
| 12:00 – 13:30 | Lunch with panellists | Restaurant Aux Chantignoles |

| Day 3 | Wed., 27 May 2015 | Open to the media and to non-GYA members by Invitation only |
|------------------|--|--|
| 13:30 – 14:35 | Science Session I: Science Policy and Globalization Chair: Abdeslam Badre (GYA) | Canada Room |
| 14:35 – 15:00 | Coffee break | Mezzanine, Québec Room |
| 15:00 – 16:00 | Keynote on 'Future Earth', Gordon McBean, President of ICSU Panel discussion with GYA members Abdeslam Badre, Kiki Jenkins and Sabina Leonelli Moderator: Robert Leckey (GYA) Q&A with GYA membership | Canada Room Master of Ceremony: Robert Leckey |
| 16:00 – 17:05 | Science Session II: Science and Technology Chair: Gregory Weiss (GYA) | Canada Room |
| 17:05 – 18:30 | Working Groups | Canada Room, Québec, Ontario & Alberta Room |
| 18:30 – 20:00 | Interactive dinner with VIPs and sponsors (seating organised) | Restaurant Aux Chantignoles |
| 20:00 – 20:50 | Presentations of candidates for Co-Chair and EC (NEC) | GYA members only |
| 20:50 – 22:00 | Working Groups | Canada Room, Québec, Ontario & Alberta Rooms |
| 22:00 - open end | Meet the candidates at the fireplace | |

| Day 4 | Thur., 28 May 2015 GYA AGM | GYA MEMBERS ONLY |
|---|--|--|
| 10:30 – 12:30 | EC election and announcement of results (NEC) Proposals for decision AGM 2016 announcement Presentation of new EC (NEC) | Canada Room Chair: Sameh Soror |
| 12:30 – 14:00 12:30 – 13:30 13:30 – 14:30 | Lunch Old & New EC joint lunch Old & New EC Meeting | Aux Chantignoles Québec Room |
| 14:30 – 15:00 | Group Photo EC Photos & New Members Photos | Hotel Lobby in front of Fireplace |
| 15:00 – 15:30 | Coffee break (photos continuing if necessary) | Mezzanine |
| 15:30 – 17:00 | Session on selection of new members: practices and procedures, Coordinators: Julia Baum and James Tickner Other GYA work continuing (WGs, EC) | Canada Room Ontario Room, Alberta Room, [Québec Room] |
| 17:00 – 18:30 | 3 parallel FA discussions about the outcome of the Working Groups and projects | Canada Room, Québec, Ontario & Alberta Room |
| 18:30 – 19:00 | Optional: Interdisciplinary Grant Matchmaking Session (Bettina Speckmann and Miriam Beck) New EC Meeting | Canada Room Québec Room |
| 19:00 – 20:30 | Farewell Dinner | Restaurant Aux Chantignoles |
| 20:30 – 22:00 | Farewell Party and Bonfire | Hotel Terrace |

Day 5

Fri., 29 May 2014

GYA MEMBERS ONLY

| | | |
|---------------|---|-----------------------------|
| 07:00 – 08:30 | Breakfast | Restaurant Aux Chantignoles |
| 08:30 – 09:50 | FA present their achievements with regards to the WGs and projects & next steps | Canada Room |
| 09:50 – 10:00 | Closing remarks GYA Co-Chairs | |
| 10:00 – 10:30 | Coffee followed by departure of buses | |

Local Organizing Committee

Dr. Andrew E. Pelling, Associate Professor, Department of Physics, University of Ottawa (Co-Chair)

Dr. Federico Rosei, Professor, Énergie, Matériaux et Télécommunications, Institut National de la Recherche Scientifique (Co-Chair)

Dr. Julia Baum, Assistant Professor, Department of Biology, University of Victoria

Dr. Bing Chen, Associate Professor, Department of Civil Engineering, Faculty of Engineering and Applied Science, Memorial University of Newfoundland

Programming was supported by

Dr. Abdeslam Badre, Professor, Department of English Studies, Mohammed V University of Rabat, Morocco

Dr. Rees Kassen, Professor, Department of Biology, University of Ottawa

Dr. Jeremy Kerr, Professor, Department of Biology, University of Ottawa

Dr. Robert Leckey, Associate Professor, Faculty of Law, McGill University

Dr. Fiorenzo Vetrone, Assistant Professor, Institut National de la Recherche Scientifique, Université du Québec

Dr. Oded Hod, Professor, School of Chemistry, Tel Aviv University, Tel Aviv, Israel

This AGM would not have been possible without strong financial support from these organizations:



Participants of the GYA AGM 2015



GLOBAL
YOUNG
ACADEMY



Photo: Global Young Academy



GLOBAL
YOUNG
ACADEMY

2015