csem

4th Next-gen organ-on-chips & organoids

Haus der Wirtschaft • Pratteln, Basel
13-14 Feb, 2025

Welcome to the Haus der Wirtschaft !

Dear participants,

We are thrilled to welcome you to the 4th edition of the Next Gen Organ-on-Chips & Organoids Workshop, taking place this year in one of Switzerland's thriving biotech hubs – Baselland. Building on the insights and success of previous editions, we have crafted an even more dynamic and enriching program for 2025!

At the heart of this year's workshop is bioconvergence – a transformative multidisciplinary approach that integrates biotechnology, engineering, and computing to solve complex challenges. This pioneering field is already reshaping industries like diagnostics, materials science, pharmaceuticals, and sustainable agriculture.

Historically, science has been compartmentalized into distinct disciplines. Today, the barriers between fields are breaking down. By merging expertise and technologies from biology, engineering, and digitalization, bioconvergence is propelling healthcare and life sciences into a new era of innovation. "*Bioconvergence will transform healthcare, biotech development, and manufacturing,*" co-Heads of Research & Business Development for Life Sciences Technologies, Samantha Paoletti and Gilles Weder.

This interdisciplinary synergy between science and technology is unlocking groundbreaking solutions for personalized healthcare, biotech innovation, and pharmaceutical advancements. Through standardization, parallelization, and artificial intelligence, the transition from manual to automated workflows is enabling faster, more cost-effective solutions.

We extend our gratitude to the Scientific Committee for curating such a comprehensive and thought-provoking program. During the breaks in the program, we encourage you to explore the exhibition spaces, where you'll discover the latest innovations driving the future of life sciences.

We look forward to two days of inspiring discussions, fruitful collaborations, and visionary ideas that will shape the next generation of healthcare and biotech solutions.

Sincerely yours,

CSEM Organization Team

Scientific Committee

- Stéphanie Boder-Pasche, CSEM
- Rhiannon David, Astra Zeneca
- Olivier Guenat, University of Bern
- Alain Hirschy, Miltenyi Biotec
- Massimo Mastrangeli, Technical University Delft
- Madhu Nag, Insphero
- Samantha Paoletti, CSEM
- Adrian Roth, Roche
- Gilles Weder, CSEM

Diamond sponsor

Roche | Institute of Human Biology

Gold sponsors

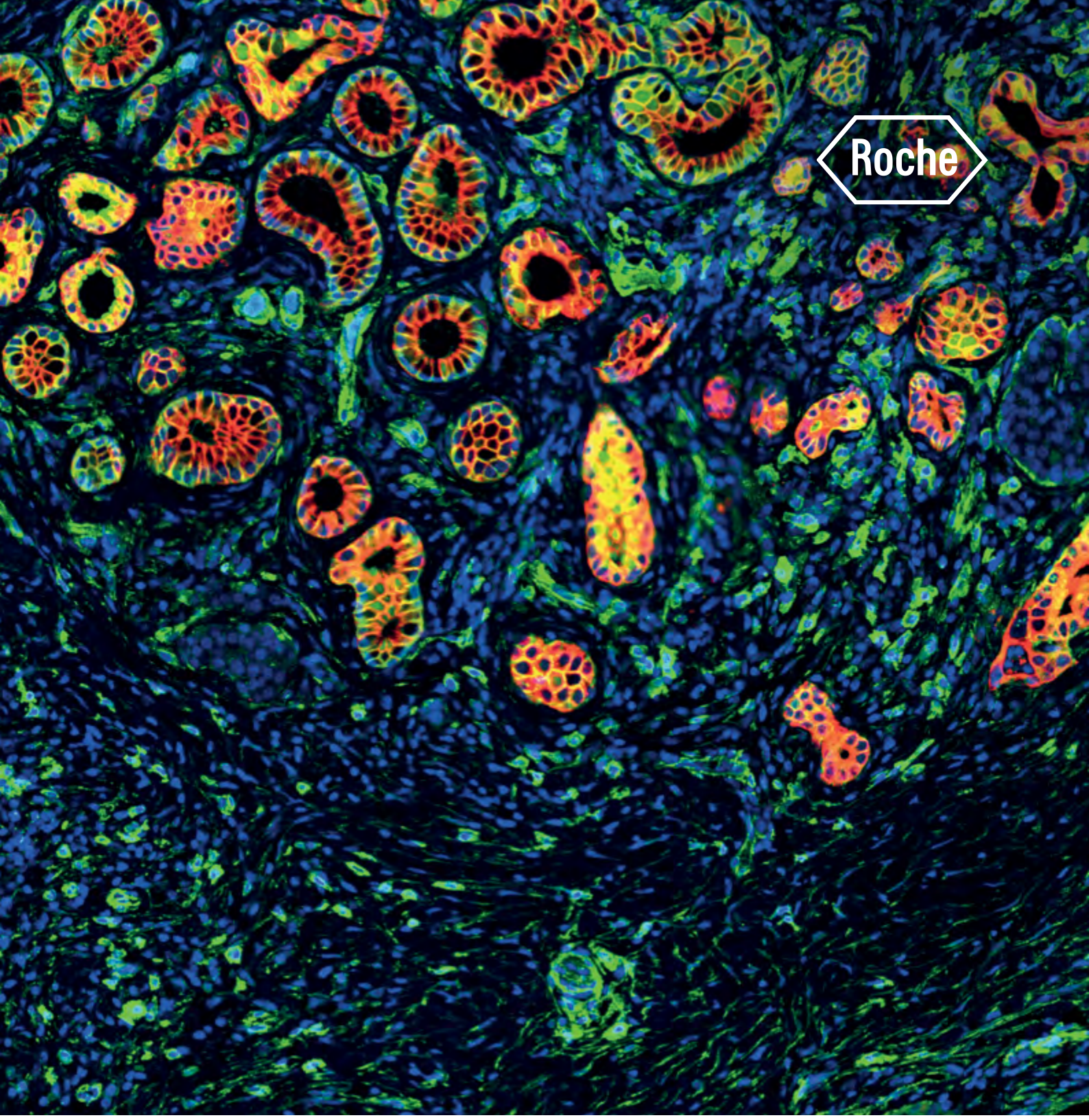
3Brain · Netherlands · insphero · ilkonplan · microfluidic ChipShop · NOVARTIS · satw it's all about technology

Exhibitors

AlveoliX In-vitro models inspired by nature · amsbio · bucher biotec · gelomics 3D cell culture technologies · Cellbox Labs · jobst technologies an IST AG company · maxwell BIOSYSTEMS · multichannel systems An Affiliate of Harvard Bioscience, Inc. · Nikon · Readily3D · STEMCELL™ TECHNOLOGIES · TECAN · TISSUSE Emulating Human Biology

Start-ups

Cellaven · CompagOs · UNIVERSITÉ DE GENÈVE · LUCERO · ORAKL ONCOLOGY · SEED • Biosciences · VISIENCO STRAIGHT INTO YOUR LAB



Institute of Human Biology

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Scientific program day 1

Thursday February 13, 2025

09:30 **Registration & coffee**

10:00 ***Start of the event***

Bioconvergence to transform the future
Gilles Weder, Head Research & BD Life Sciences, CSEM

Unveiling the secrets of life by empowering technology
Vincent Revol, VP Industry 4.0 & Life Sciences, CSEM

10:15 **INVITED SPEAKER**
Bringing immune engineering for children to global health
Stephen Wilson, CEO, Botnar Institute of Immune Engineering

10:35 **INVITED SPEAKER**
CuSTOMizing Organoids for Drug Discovery and Development
Magdalena Kasendra, Director of Research and Development, Center for Stem Cells and Organoid Medicine, Cincinnati Children's Hospital Medical Center

ORGANOID ENGINEERING SESSION SPONSORED BY INSPHERO

10:55 ***Session opening***
Felix Kurt, Group Leader Biosystems Engineering, CSEM

11:00 ***AirLiwell: An air-liquid interface technology for reproducible, scalable, & standardized spheroid & organoid models***
Sanae El Harane, Research Scientist, University of Geneva

11:10 ***Human organoids in pre-clinical drug testing***
Sylke Hoehnel-Ka, Founder, DOPPL

11:20 ***TBC***
Burcak Yesildag, Vice President – Diabetes Research, InSphero

11:30 ***Leveraging microgravity for 3D tissue models***
Célia Metry, Research & Development Specialist, Prometheus

11:40 KEYNOTE SPEAKER

Cerebral organoids: Modeling human brain development and disease in stem-cell derived 3D culture

Jürgen Knoblich, PhD, Director at Institute of Molecular Biotechnology of Austria

12:10 ***Exhibition opening***
Stéphanie Boder-Pasche, Group Leader Cell Microtechnologies, CSEM

12:25 ***Community picture***

12:30 **Lunch & exhibition**

ORGANOID HANDLING SESSION SPONSORED BY 3BRAIN

13:45 ***Session opening***
Tom Valentin, Group Leader Automated Sample Handling, CSEM

13:50 ***Automated workflow for scaffold-free and scaffold-based 3D models in drug screening***
Lucía Bruzzone, Senior Manager, Tecan // Bono Epifania, Research Associate, ZHAW

14:00 ***AI-powered automated laboratory device to sort organoids***
Lucie Jandet, COO & co-founder, Visienco

14:10 ***Advancing Drug Discovery with Assay-Ready Single Spheroids***
Martin Mojica Benavides, Research Scientist & Co-founder, Lucero

Schweizerische Akademie der Technischen Wissenschaften SATW

Die SATW ist das bedeutendste Netzwerk von Expert:innen für Technikwissenschaften in der Schweiz und informiert Politik, Gesellschaft und Industrie über relevante technologische Entwicklungen. Sie fördert auch das Technikinteresse und -verständnis bei Jugendlichen und ist politisch unabhängig und nicht kommerziell. Als verlässliche Informationsquelle für Entscheidungsträger:innen und die Öffentlichkeit ist die SATW einzigartig.

We are pleased to announce our new strategic collaboration between Health~Holland, the Netherlands Enterprise Agency (RVO), the Netherlands Embassy in Switzerland, and the life sciences & health industry. Together, we are developing a strategic internationalization roadmap to strengthen the collaboration between the Netherlands and Switzerland and jointly become leaders in the field of Organ-on-Chip.

Curious to learn more about the vibrant Life Sciences ecosystem in the Netherlands or our upcoming activities? Visit our booth or join us during the Apéro. We look forward to meeting you, exploring new collaborations, and further strengthening the ties between our countries.

Scientific program day 1

MPS SESSION SPONSORED BY THE NETHERLANDS EMBASSY

14:20 ***Session opening***
Massimo Mastrangeli, Delft University of Technology

14:25 ***Vascularized tumor immune microEnvironment (vTIME)***
Kyu Baek, CEO, Qureator

14:35 ***Integrating immunological competence into a multi-organ MPS platform***
Ilka Maschmeyer, Director Business Development, TissUse

14:45 ***Turning standard multiwell plates into perfusable organs on well: case studies on breast cancer and adipose tissue organoids***
Pierre Gaudriault, Chief Business Developer, Cherry Biotech

14:55 ***Mechanoresponsive bone organoids: A platform for diagnostics and therapeutics testing***
Gian Nutal Schädli, CEO, CompagOs

15:05 ***What makes organ on chip technology industrial?***
Roberts Rimsa, CTO, Cellbox Labs

15:15 ***A microphysiological system for chronic cardiotoxicity assessment: Insights from HESI working groups***
Bettina Lickiss, BD & Science Communications Manager, innoVitro GmbH

15:25 ***Fluidic Control in Standard Well Plates: Advancing Sensitive Cell Cultures***
Tessa de Korte, Director of Biology, Sync Biosystems

15:35 ***UNLOOC - Unlocking the data content of Organ-on-Chip – 51 partners one common goal***
Dr. Claudia Gärtner, CEO, Microfluidic ChipShop GmbH

15:45 **Coffee break & exhibition**

16:25 ***Fireside chat Women health***
Antonella Santuccione Chadha, Founder of the Women's Brain Foundation, Chief Medical Officer at WBF and Vice President at Euresearch

Samantha Paoletti, Head Research & BD Life Sciences, CSEM

SCIENCE SLAM SPONSORED BY ROCHE INSTITUTE OF HUMAN BIOLOGY

16:40 ***Science slam opening***
Gilles Weder, Head Research & BD Life Sciences, CSEM
Manuela Estermann, Project Manager External Alliances, Roche Institute of Human Biology (IHB)

16:45 ***PhD students pitches***

17:15 **Award ceremony**

17:30 ***Apero riche (co-sponsored by the Netherlands Embassy) & exhibition***

19:00 ***End of first day***

Scientific program day 2

Friday February 14, 2025

08:30 **Registration & coffee**

09:00 ***Session opening***
Erika Györvary, Lead of EU Affairs, CSEM

09:05 ***The innovation power of the Swiss biotech hub and its appeal for international partners***
Michael Altorfer, CEO of the Swiss Biotech Association

ORGANOID MATURATION & ANALYSIS SESSION SPONSORED BY MICROFLUIDIC CHIPSHOP

09:15 ***Session opening***
Olivier Guenat, University of Bern

09:20 ***An easy-to-use and affordable automation platform for 3D cell culture***
Lisa Morisseau, Head of Biological Applications, Cellaven

09:30 ***Novel smart labware for enhanced organoid dissociation and single cell analysis***
Charlotte Fonta, Senior R&D Engineer, CSEM

09:40 ***Transforming advanced breast cancer care with personalized functional ex vivo drug ccreening***
Mohamed Bentires-Alj, Professor of Experimental Surgical Oncology, University of Basel, University Hospital Basel

09:50 ***Organoids for toxicity testing***
Ellen Fritsche, Director, SCAHT - Swiss Centre for Applied Human Toxicology, Basel, Switzerland

10:00 ***TBC***
Jannis Meents, Head of Advanced Technologies, Harvard Bioscience & Multi Channel Systems

10:10 **Coffee break & exhibition**

10:40 ***Advancements in tissue chips & organoid systems for space research: The european space agency's strategies for LEO and beyond***
Ian Johnson, Senior Coordinator for Life Sciences, Human Exploration Science – Directorate of Human and Robotic Exploration, Telespazio for the European Space Agency

10:50 ***Sensor integration in vascularized organoids on chip: shaping the future of the precision medicine***
Fabrice Navarro, Head of research unit « Microtechnologies for living systems interactions», CEA Leti

11:00 ***TBC***
Andy Tonazzi, Owner & co-CEO, konplan Group AG

11:10 ***Phenotypic disease modeling for immune oncology***
Henriëtte Lanz, VP Biology, MIMETAS BV

11:20 ***Javelin multi-MPS platform for mechanistic ADMET applications***
Murat Cirit, CEO, Javelin Biotech

3Brain

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Scientific program day 2

11:30 ***Fireside chat Human Biology***
Adrian Roth, Principal Scientific Director Precision Safety, Product Development Safety, F. Hoffmann-La Roche Ltd
Samantha Paoletti, Head Research & BD Life Sciences, CSEM

11:45 **Lunch & exhibition**

PHARMA SESSION SESSION SPONSORED BY KONPLAN

13:00 ***Session opening***
Alain Hirschy, Miltenyi Biotec

13:10 ***Brain organoid electrical activity recording to evaluate new treatment***
Sylvain Lengacher, co-CEO, Gliapharm

13:20 ***Lung Organoids in R&D: Closing the Gap Between Model Development and Pharmaceutical Applications***
Lauriane Cabon, Group Lead, Roche Institute of Human Biology

13:40 ***Establishing immune-competent human lung organoids to assess pre-clinical drug safety risks in vitro***
Kelly Evans, Senior Scientist, AstraZeneca UK

13:50 ***Disruption of serotonin homeostasis in intestinal organoids provides insights into drug-induced gastrointestinal toxicity***
Katie Kubek-Luck, Principal Scientist II, Novartis

KEYNOTE SESSION SPONSORED BY NOVARTIS

13:50 ***Keynote session opening***
Madhu Nag, inSphero

13:55 KEYNOTE SPEAKER

Patient derived organoids as decision-making tool in precision oncology

Fanny Jaulin, PhD, CEO at Orakl Oncology and Research Director at Gustave Roussy Institute

14:25 ***Closing***

14:45 ***End of the event***

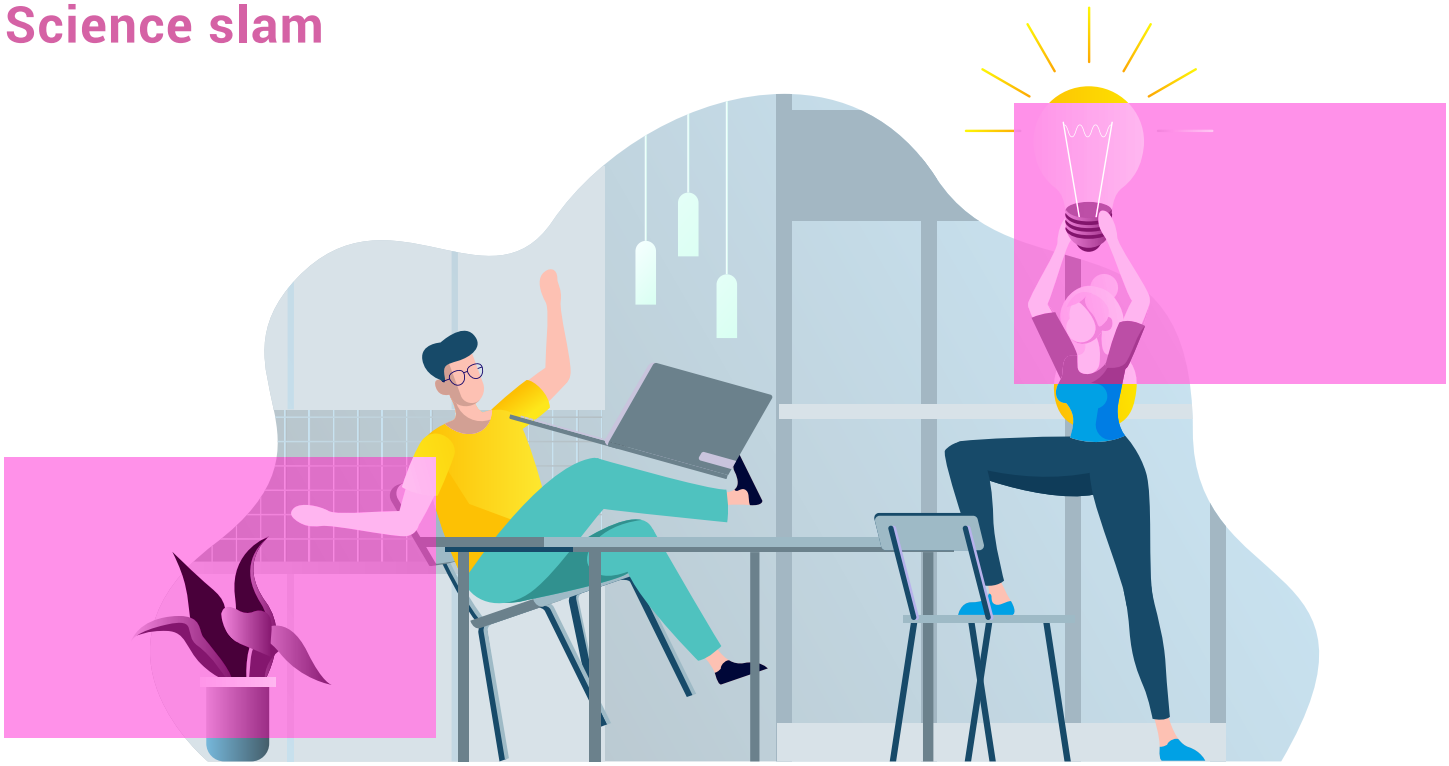
Venue

This event will take place on February 13-14, 2025, at the Haus der Wirtschaft, Hardstrasse 1, 4133 Pratteln (access map)

www.csem.ch/events

Memorable moments from 2023

Science slam



What is a Science Slam?

Imagine a stage where 8 PhD students captivate the audience with their research, presented in a short and entertaining way. This is your chance to learn about the latest breakthroughs across various domains in a fun and informative atmosphere, all while supporting young researchers.

- At the end of the Science Slam, the audience will vote to crown the Science Slam Winner!
- The winner will be invited as a speaker at the next edition.

As a Diamond sponsor, you have a unique opportunity to show your support for young researchers and gain visibility in front of the entire audience during your introductory pitch.