



On 14 July 2020, the European Commission adopted a set of proposals to make the EU's climate, energy, transport, and taxation policies fit for reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels. Achieving these emission reductions in the next decade is crucial to Europe becoming the world's first climate-neutral continent by 2050 and making the European Green Deal a reality.

The Green for Good series that started in 2011 goes hand in hand with the recent European Commission's goal. Our mission is to bring together experts from fields of plant biotechnology, energy capture and storage, bioeconomy and circular economy who will share their newest scientific results and discuss possible solutions to global challenges lying ahead of our society to achieve more sustainable future.

The event commemorated the 200th birthday of Gregor Johann Mendel, the pioneer of plant genetics, who had also studied in Olomouc. Mendel had dedicated his life to becoming a priest in an Augustinian monastery, to teaching and, above all, to studying the laws of genetics to trace the transmission of hereditary characteristics in successive generations of hybrid offspring.

The topics included:

- Cutting edge plant biology.
- Genome editing in crops.
- Emerging trends in food biotechnology.
- Bioeconomy and circular economy.
- Industry meets academia.
- Bioinspired energy capture and storage.
- Green deal.

## Monday 12th September

12:00 18:00 Registration ([GPS 49.59045121540736, 17.26264760165829](https://gps.49.59045121540736.17.26264760165829))

### OPENING SESSION

- 16:00 16:30 **Welcome by organizers:** Jeff Cole (EFB), Pavel Banáš (CATRIN UP), Lucie Plíhalová (UP Olomouc), Ivo Frébort (CATRIN UP/EFB), Kirsten Luxbacher (U.S. Embassy Berlin), Tomáš Dostál (ICOK)
- 16:30 17:15 **OPENING LECTURE: A faba bean pan-genome for advancing sustainable protein security.** [Alan H. Schulman](#) (University of Helsinki, Finland) – introduction by Petr Smýkal (UP Olomouc)
- 17:15 18:00 **PLENARY LECTURE: Applied genomics and green biotech: redefining specialty crop improvement for the future.** [Gary E. Vallad](#) (University of Florida, USA) – introduction by Jana Fischer (U.S. Embassy Prague)
- 18:00 18:10 **Commemoration of Gregor Johann Mendel:** Jaroslav Doležel (IEB AS CR)  
**Gregor Mendel – Genius of Genetics:** presentation of the artwork by Jitka Brůnová Lachmann
- 18:15 21:00 Welcome reception (on-site)

## Tuesday 13th September

### SESSION 1

**CUTTING EDGE PLANT BIOLOGY**, Chair: [Ivo Frébort](#) (CATRIN UP, Czech Republic)

- 09:00 09:30 Keynote lecture: **Engineering brassinosteroid signalling in the plant vasculature: a tactical solution to combat climate change.** [Ana Caño-Delgado](#) (CRAG Barcelona, Spain)
- 09:30 09:45 Flash posters
- 09:45 10:00 Short talk: **Introgression lines as a tool to widen the genetic diversity and to provide climate.** [Petr Smýkal](#) (UP Olomouc, Czech Republic)
- 10:00 10:15 Short talk: **Identification and characterization of novel polyamine oxidase gene family in *Hordeum vulgare* and its reaction to drought.** Francisco Ignacio Jasso-Robles (CATRIN UP, Czech Republic)
- 10:15 10:45 Coffee break

### SESSION 2

**GENOME EDITING IN CROPS**, Chair: [Aleš Pečinka](#) (IEB AS CR, Czech Republic)

- 10:45 11:15 Keynote lecture: **Using crop genome dynamics for stress adaptation and the challenges in breeding innovation Europe.** [Etienne Bucher](#) (Botanical Institute, Basel, Switzerland)
- 11:15 11:30 Flash posters
- 11:30 11:45 Short talk: **What's needed to enable plant breeding innovation to contribute to sustainable.** [Petra Jorasch](#) (Euroseeds, Brussels, Belgium)
- 11:45 12:00 Short talk: **An atlas of gene expression during barley grain development.** [Aleš Pečinka](#) (IEB AS CR, Czech Republic)
- 12:00 13:30 Lunch, networking, poster viewing

<b>SESSION 3</b>		<b>EMERGING TRENDS IN FOOD BIOTECHNOLOGY</b> , Chair: <a href="#">Wolfram Brück</a> (HES-SO Valais Wallis, Switzerland)
13:30	14:00	Keynote lecture: <b>Future-proof biotechnologies for sustainable dietary transition.</b> <a href="#">Emanuele Zannini</a> (University College Cork, Ireland)
14:00	14:15	Flash posters
14:15	14:30	Short talk: <b>Discovery of antioxidant enzymes in green algae - promising applications in biotech and pharmacy.</b> <a href="#">Marcel Zámocký</a> (IMB SAS Bratislava, Slovakia)
14:30	14:45	Short talk: <b>Blackberry fruit: Differences between wild species and cultivars.</b> <a href="#">Sanja Čavar Zeljković</a> (CATRIN UP, Czech Republic)
14:45	15:15	Coffee break

#### PANEL DEBATE

15:15	16:00	<b>WOMEN IN AGRICULTURE</b> Moderator: <a href="#">Ana Caño-Delgado</a> (CRAG Barcelona, Spain) Participants: <a href="#">Nuria De Diego</a> (CATRIN UP), <a href="#">Dominika Sokolová</a> (Festada)
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#### POSTER SESSION

16:00	17:00	Poster viewing (odd numbers) and discussion
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#### Wednesday 14th September

<b>SESSION 4</b>		<b>BIOECONOMY AND CIRCULAR ECONOMY</b> , Chair: <a href="#">Eva Cudlínová</a> (University of South Bohemia; 1 <sup>st</sup> Vice-President of the Bioeconomy Platform of the Czech Republic)
09:00	09:30	Keynote lecture: <b>Why is background and definition of Bioeconomy important for a transition to a New Economy.</b> <a href="#">Martin Greimel</a> (BOKU Vienna, Austria)
09:30	09:45	Flash posters
09:45	10:00	Short talk: <b>Contribution of national forest strategy to research and innovation: Forestry accounts for the Bioeconomy.</b> <a href="#">Diana Carolina Huertas Bernal</a> (Czech University of Life Sciences Prague)
10:00	10:15	Short talk: <b>A biotechnological approach for CO<sub>2</sub> capture using accelerated weathering of pulp and paper residues.</b> <a href="#">Ayanne De Oliveira Maciel</a> (Luleå University of Technology, Sweden)
10:15	10:45	Coffee break

<b>SESSION 5</b>		<b>INDUSTRY MEETS ACADEMIA</b> , Chair: <a href="#">Esteban Alcalde</a> (Syngenta, Belgium)
10:45	11:30	Short presentations: Pavel Krist ( <a href="#">Zeiss</a> ), Petra Jorasch ( <a href="#">Euroseeds</a> ), Naďa Koničková ( <a href="#">Technology centre AS CR</a> )
11:30	12:00	Panel debate of the participants
12:00	13:30	Lunch. networking, poster viewing

<b>SESSION 6</b>		<b>BIOINSPIRED ENERGY CAPTURE AND STORAGE</b> , Chair: <a href="#">Radek Zbořil</a> (CATRIN UP, Czech Republic)
13:30	14:00	Keynote lecture: <b>From energy gatherers to energy farmers. The new era of energy vectors.</b> <a href="#">Pedro Gomez</a> (Catalan Institute of Nanoscience and Nanotechnology, Barcelona, Spain)
14:00	14:15	Short talk: <b>Flax-derived carbon: A competitive electrode material for electrochemical-double layer.</b> <a href="#">Petr Jakubec</a> (CATRIN UP, Czech Republic)
14:15	14:30	Short talk: <b>Activated carbon-sulfur composite derived from “<i>Posidonia oceanica</i>” as an effective cathode for Lithium-Sulfur batteries.</b> <a href="#">Iosif Tantis</a> (CATRIN UP, Czech Republic)
14:30	14:45	Short talk: <b>Sustainable organic ultrahigh-performing anode for Li-ion storage.</b> <a href="#">Ievgen Obraztsov</a> (CATRIN UP, Czech Republic)
14:45	15:15	Coffee break

#### PANEL DEBATE

15:15	16:00	<b>SUSTAINABILITY IN AGRICULTURE AND FOOD SYSTEMS</b> Moderator: <a href="#">Kirsten Luxbacher</a> (Agricultural Attaché, U.S. Embassy Berlin) Participants: Lydia Ugena ( <a href="#">Tradecorp International</a> ), Michal Netolický ( <a href="#">Flenexa</a> ), Gary E. Vallad ( <a href="#">University of Florida</a> )
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#### POSTER SESSION

16:00	17:00	Poster viewing (even numbers) and discussion
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#### NETWORKING EVENT

18:00	21:00	Campus Holic, networking and visit to CATRIN facilities ( <a href="#">GPS 49.57477123335133, 17.282198781408468</a> )
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#### Thursday 15th September

<b>SESSION 7</b>		<b>GREEN DEAL</b> , Chair: <a href="#">Michaela Holecová</a> (CATRIN UP, Czech Republic)
09:00	09:30	Keynote lecture: <b>CO<sub>2</sub> Czech Solution</b> , <a href="#">Leoš Gál</a> (CTP Biofuels, Prague, Czech Republic)
09:30	09:45	Flash posters
09:45	10:00	Short talk: <b>BIOTOOL</b> , the innovative research project for the study of biostimulant development and water use efficiency. <a href="#">Lydia Ugena</a> (Tradecorp International, Spain)
10:00	10:15	Short talk: <b>Bioinspired graphenes for energy storage and catalysis.</b> <a href="#">Aristides Bakandritsos</a> (CATRIN UP, Czech Republic)
10:15	10:45	Coffee break

#### CLOSING SESSION

10:45	11:30	<b>PLENARY LECTURE: Towards a climate effective bioeconomy- Using precision synthetic biotechnology tools for conversion of CO<sub>2</sub> and chemically complex biomass to sustainable platform chemicals and material entities.</b> <a href="#">Thomas Brück</a> (Technical University of Munich, Germany) – introduction by Anne Glumm and Filip Rambousek (Science Affairs Department, German Embassy Prague)
11:30	12:00	<b>Closing remarks:</b> Ivo Frébort (CATRIN UP/EFB), Jeff Cole (EFB)