



APPROACH

ADVANCED PHOTONIC PROCESSES FOR NOVEL SOLAR ENERGY HARVESTING TECHNOLOGIES

My ways to technology transfer
Lukáš Spíchal



OUTLINE

About me

How it can start

Spin-off in the Stone Age

Selling a patent

Selling a patent doesn't need to be the end of the story

About me

- 2002 M.Sc. in biology and chemistry, UPOL
- 2005 Ph.D. in biology, UPOL
Ph.D. thesis: „Molecular mechanisms of the cytokinin mode of action”
- 2002–2012 Institute for Biology, Applied Genetics, Free University in Berlin, Germany;
17 months divided into 4 stays
- 2011 co-founder and CEO of spin-off company AgroBioChem, s.r.o.
- 2018 co-founder of start-up company LeafLearn, s.r.o.

- > 110 publications; > 3500 citations; h-index 34
- > 30 patents, 3 of them licensed

Chemical biology, development of agrochemicals, development and application of tools for automated, non-invasive phenotyping of plants, including high-throughput screening bioassays to search for new genotypes, molecules, and biostimulants with biological activity applicable to agrochemicals.



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HEAD OF CATRIN – CRH

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[Profile page](#)

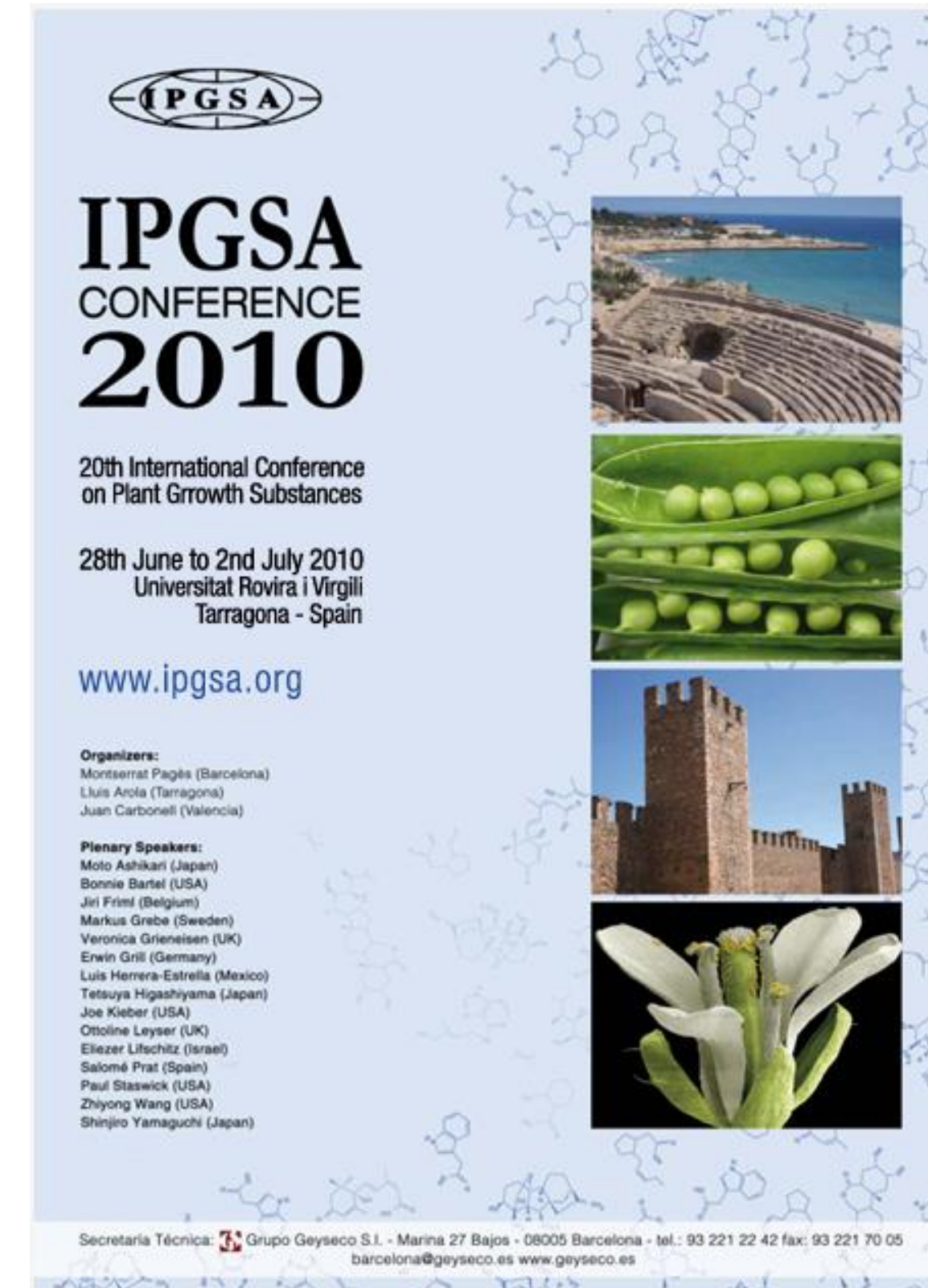
How it can start

IPGSA 2010, 20th International Conference on Plant Growth Substances, Tarragona (Spain)

New cytokinin derivatives for agricultural applications

Lukáš Spíchal

Laboratory of Growth Regulators, IEB AS CR & UP Olomouc,
Czech Republic



The poster for the IPGSA Conference 2010 features a light blue background with a pattern of chemical structures. At the top left is the IPGSA logo. The main title 'IPGSA CONFERENCE 2010' is prominently displayed. Below it, the conference details are listed: '20th International Conference on Plant Growth Substances', '28th June to 2nd July 2010', and 'Universitat Rovira i Virgili Tarragona - Spain'. The website 'www.ipgsa.org' is provided. A list of organizers and plenary speakers follows. On the right side, there are three images: a coastal town, a green pea pod, and a white flower. At the bottom, contact information for the organizing group is provided.

IPGSA
CONFERENCE
2010

20th International Conference
on Plant Growth Substances

28th June to 2nd July 2010
Universitat Rovira i Virgili
Tarragona - Spain

www.ipgsa.org

Organizers:
Montserrat Pagès (Barcelona)
Lluís Arola (Tarragona)
Juan Carbonell (Valencia)

Plenary Speakers:
Moto Ashikari (Japan)
Bonnie Bartel (USA)
Jiri Friml (Belgium)
Markus Grebe (Sweden)
Veronica Grieneisen (UK)
Erwin Grill (Germany)
Luis Herrera-Estrella (Mexico)
Tetsuya Higashiyama (Japan)
Joe Kieber (USA)
Ottoline Leyser (UK)
Eliazer Litchitz (Israel)
Salomé Prat (Spain)
Paul Staswick (USA)
Zhiyong Wang (USA)
Shinjo Yamaguchi (Japan)

Secretaría Técnica: Grupo Geysco S.L. - Marina 27 Bajos - 08005 Barcelona - tel.: 93 221 22 42 fax: 93 221 70 05
barcelona@geysco.es www.geysco.es

How it can start

BASF representative: „How about to collaborate?“

„Can you imagine that...?“

„Would be possible that...?“

LS: „Sure!“ (3x)

LS: „How about \$?“

BASF representative: „Sure!“



Spin-off in the Stone Age (UPOL, A.D. 2011)

BASF wants to do contractual research and pay UPOL

UPOL wants to have better (unimportant) wording in the contract

BASF is nervous, needs the research to be done

UPOL wants to have better (still unimportant) wording in the contract

BASF says: „Hey, Lukas is there another way to make a deal?“

LS says: „Sure! ...?“

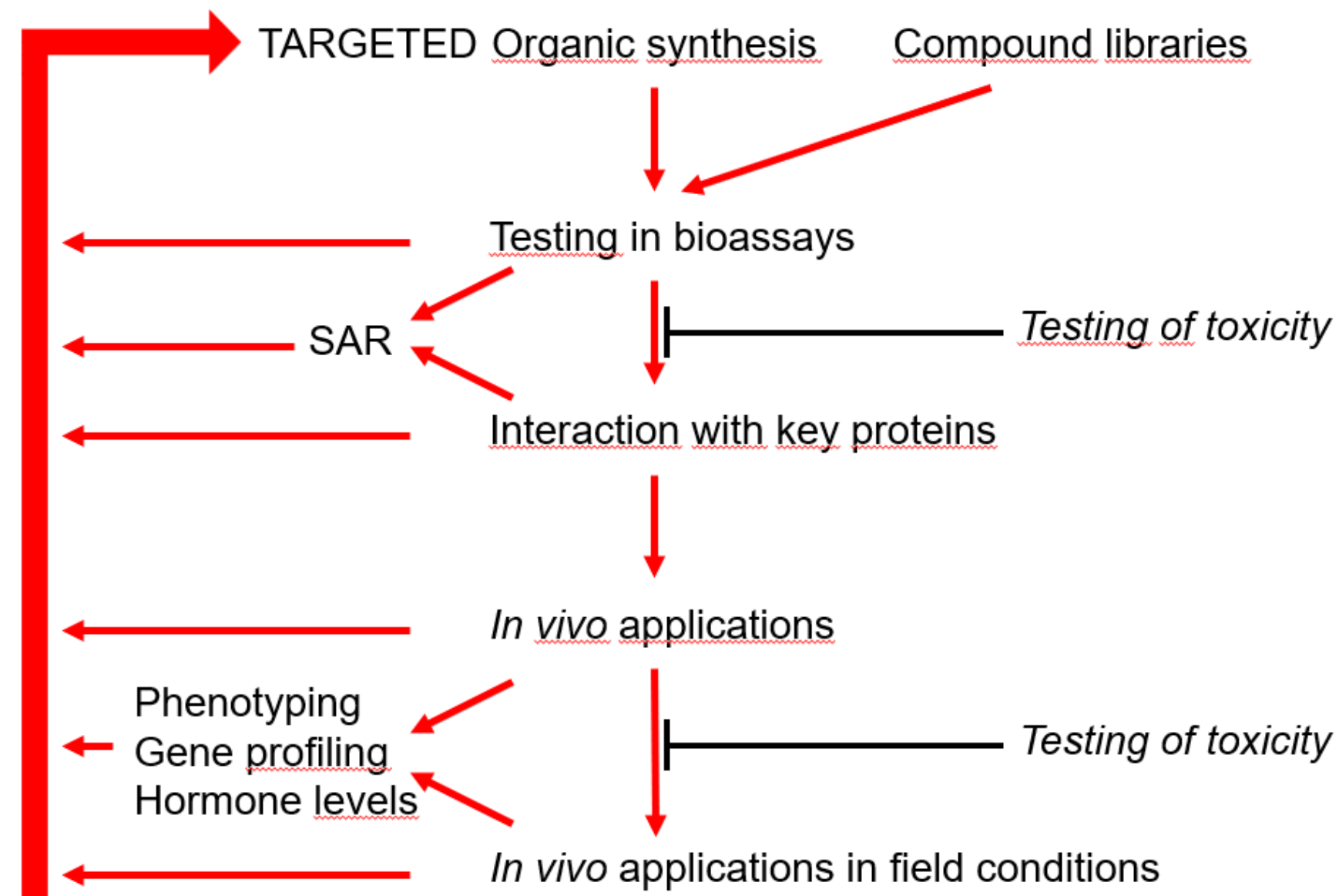
There are no existing spin-off rules, Stone Age, Wild West. I am not a caveman! But I need to be a cowboy, the good one, brave and fair...

AgroBioChem 

established, contract signed immediately for 1 year,
3 years of collaboration with BASF

Selling a patent (2014)

Chemical biology pipeline at CRH



INCYDE - summary

Selling a patent (2014)

Substituted 6-anilinopurine derivatives as inhibitors of cytokinin oxidase/dehydrogenase and preparations containing these derivatives

US 8,222,260B2

EP 2173173B1



syngenta
Crop Protection



- Synthesis (A.D. 2004)
- Enzymatic testing
- Computer modeling
- Improvement of the structure

- Bioassays
- Functional assays → High-throughput screening
- Application to plants → Integrative phenotyping
- Field experiments

- Selling the patent (A.D. 2014)

Selling a patent doesn't need to be the end of the story



INCYDE works on rice, but how? And how it can work in other crops?



„Lukas, can you help us?“

LS:

„Sure! UPOL is ready.“



„We don't want only numbers, we need your interpretations!“



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APPROACH

THANK YOU

This project receives funding from the European Commission's
Horizon Europe Research Programme under Grant Agreement Number 101120397

