



TURKEY IN HORIZON 2020
ALTUN/HORIZ/TR2012/0740.14-
2/SER/005



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Bu proje Avrupa Birliği ve Türkiye Cumhuriyeti tarafından
finanse edilmektedir.

H2020 Focused Group Training

Spreading Excellence and Widening Participation

Robert Malinowski
Istitute of Plant Genetics
of the Polish Academy of Sciences
ERA-CHAIR BIO-TALENT FP7



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Successful ERA Chair story



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BIO-TALENT

The Creation of the Department of Integrative Plant Biology

FP7-ERACHairs-Pilot Call-2013



This project has received funding from the European Union's
Seventh Framework Programme for research, technological
development and demonstration under grant agreement no 621321



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Pros and cons of being the ERA-CHAIR

-Possibility to create the new international research group

-Reaching the new research environment

-Atractive salary

-Reaching the new research environment

-Responsibility on the creation of the new international research group

-Moving to the new and unknown place

-Starting from scratch



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Before you decide:

- Check the starting offer from the hosting institution
- Ask what was the strategy to apply for the ERA-CHAIR
- Check the efficacy of administration and formal support within the host institution
- Make sure that you understand the role of the ERA-CHAIR



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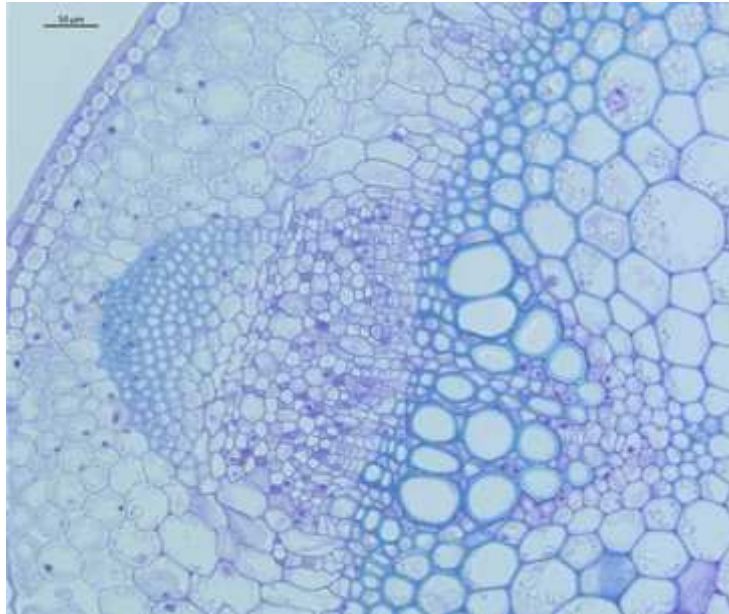


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Pilot calls had no starting research funds !!!

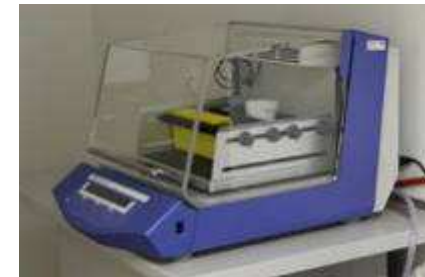


NCN SONATA BIS2 project transfer
1.34 mln PLN





- | | |
|-----------------------|--------------------------|
| 1. Camera | 5. Colibri control panel |
| 2. ApoTome power | 6. ApoTome slider |
| 3. Colibri controller | 7. Reflector turret |
| 4. Microscope power | 8. TFT display |



BIO-TALENT FP7-ERACHairs-Pilot Call-2013

The Creation of the Department of Integrative Plant Biology

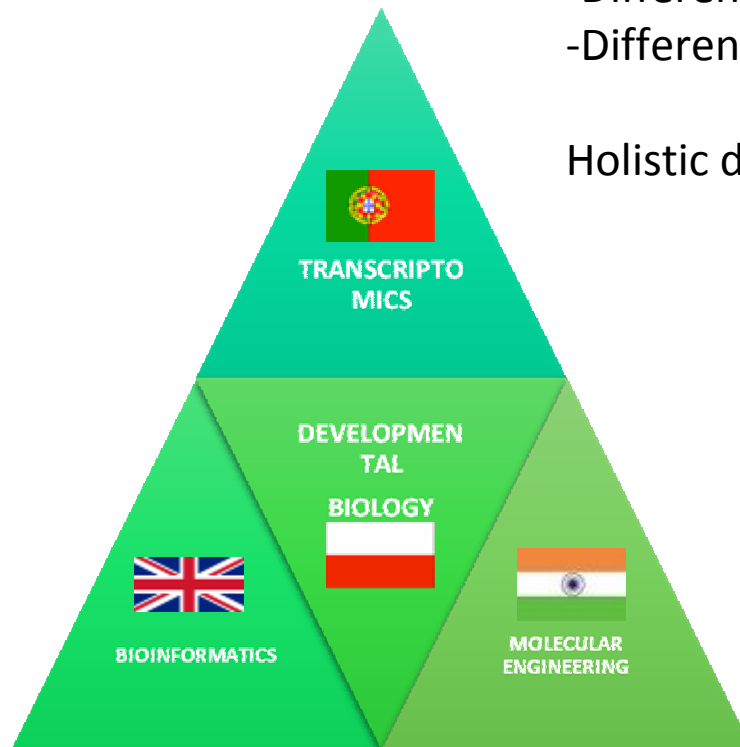
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BRAIN GAIN - Dominating boss versus the lack of vision



- Diverse Group
- Different countries
 - Different areas of expertise

Holistic description of biological phenomena



DEVELOPMENTAL BIOLOGY

- Robert Malinowski [ERA-Chair Holder]
- Karolina Stefanowicz [R2 Junior Postdoc]

TRANSCRIPTOMICS

- Jorge Paiva [Senior R3 Researcher]

MOLECULAR ENGINEERING

- Franklin Gregory [Senior R3 Researcher]

BIOINFORMATICS

- William Truman [R2 Senior Postdoc]

INTERDISCIPLINARY RESEARCH



 **BIO-TALENT** *FP7-ERACHairs-Pilot Call-2013*
The Creation of the Department of Integrative Plant Biology

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- Kick off meeting:**
- Attract regional and central authorities
 - Improve the visibility
 - Sell your idea of science
 - Open the gate for further cooperations



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Writing Projects – decide what is your target

Polish National Science Center research projects funds received by the BIO-TALENT team
In total for research: 5 600 283 PLN / apr. 1 272 791,59 euro



Lp	Type	Numer	Title	PI	Department	Amount PLN
1	SONATA 5	2015/17/D/NZ9/01977	The importance of cell wall changes occurring within host plant for the <i>Plasmodiophora brassicae</i> infection progression	Karolina Stefanowicz	Integrative Plant Biology	260 233,00
2	OPUS10	2015/19/B/NZ3/01489	Understanding the role of chitin related defence responses during <i>Plasmodiophora brassicae</i> infection - Two PhD students	William Truman	Integrative Plant Biology	895 460,00
3	OPUS11	2016/21/B/NZ9/01980	HyperNano: Understanding plant secondary metabolic changes in response to nanoparticles via an integrated omics approach in <i>Hypericum perforatum</i> - One Postdoc and two PhD students	Franklin Gregory	Integrative Plant Biology	939 640,00
4	SONATA BIS2	2012/07/E/NZ3/00510	"Integrated approach for deciphering the mechanism leading to shift in cell proliferation/differentiation balance accompanying clubroot infection" -One Postdoc and one PhD student	Robert Malinowski	Integrative Plant Biology	1340258,00
5	SONATA BIS 5	2015/18/E/NZ2/00694	"PurpleWalls - Unraveling genome regulation to modulate wood formation in <i>Salix purpurea</i> : an integrative approach" - One Postdoc and one PhD student	Jorge Almiro Barceló Caldeira Pinto Paiva	Integrative Plant Biology	1495 880,00
6	OPUS11	2016/21/B/ZN9/02020	The role of phloem transport in pea plants adaptation to water deficit	Robert Malinowski	Integrative Plant Biology	668 812,00

Ministry of Science and Higher Education supporting structural funds 1656000,00 PLN / apr. 376363,636 euro



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Ministry of Science and Education
Restructurization Grant 1,6 mln PLN



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Current Department Composition

Head of the Department:

Robert Malinowski

TEAM1: Plant Biology Systems

Head: Robert Malinowski

William Truman

Karolina Stefanowicz

Marcin Olszak

Piotr Walerowski

Soham Muhopadey

Juan Camillo Ochoa

TEAM2: Cell Wall By Design

Head: Jorge Pinto Paiva

Carolina Gomes

TEAM3: Nanobiotechnology and Secondary

Metabolite Biosynthesis

Head: Frankling Gregory

Preeti Shakya



**Broker of innovation:
Aleksandra Kempieńska**



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Data Publishing:

Hou W., **Shakya P., Franklin G. (2016).** [A Perspective on Hypericum perforatum genetic transformation](#). Frontiers in Plant Science doi: 10.3389/fpls.2016.00879

Marslin G., Sarmiento B.F.C.C., **Franklin G.**, Martins J.A.R., Silva C.J.R., Gomes A.F.C., Sárria M.P., Coutinho O.M.F.P., Dias A.C.P. **(2016).** Curcumin Encapsulated into Methoxy Poly(Ethylene Glycol) Poly(ε-Caprolactone) Nanoparticles Increases Cellular Uptake and Neuroprotective Effect in Glioma Cells. *Planta Medica* 82: 1-11. DOI: <http://dx.doi.org/10.1055/s-0042-112030>

Siram K., Raghavan C.V., Marslin G., Rahman H., Divakar S., Balakumar K. **Franklin G. (2016).** Quillaja saponin: A prospective emulsifier for the preparation of solid lipid nanoparticles. *Colloids and surfaces B: Biointerfaces* DOI: [10.1016/j.colsurfb.2016.07.065](https://doi.org/10.1016/j.colsurfb.2016.07.065)

Siram K., Marslin G., Raghavan Ch. V., Balakumar K., Rahman H., **Franklin G. (2016).** A brief perspective on the diverging theories of lymphatic targeting with colloids. *International Journal of Nanomedicine* 11: 1-6.

Malinowski R., Novak O., Borhan MH, Spichal L., Strnas M., Rolfe SA. **(2016).** The role of cytokinins in clubroot disease. *European Journal of Plant Pathology* DOI: [10.1007/s10658-015-0845-y](https://doi.org/10.1007/s10658-015-0845-y)

Rolfe S.A., Strelkov S., Links M., Clarke W.E., Robinson S., Djavaheri M., **Malinowski R.,** Haddadi P., Kagale S., Parkin I., Taheri A., Borhan M.H. **(2016).** The compact genome of the plant pathogen *Plasmodiophora brassicae* is adapted to intracellular interactions with host Brassica spp. *BMC Genomics* 17 (1): DOI: [DOI: 10.1186/s12864-016-2597-2](https://doi.org/10.1186/s12864-016-2597-2)

Ribeiro T.M., Barreia R.M., Berges H., Marques C., Loureiro J., Morais-Cecilio L., **Paiva J.A.P. (2016).** Advancing Eucalyptus Genomics: Cytogenomics Reveals Conservation of Eucalyptus Genomes. *Frontiers in Plant Science*. DOI: [10.3389/fpls.2016.00510](https://doi.org/10.3389/fpls.2016.00510)

Singh RK, Hou W., **Franklin G. (2016).** Construction of Hypericin Gland-Specific cDNA Library via Suppression Subtractive Hybridization in *Methods Molecular Biology*, Vol. 1391, S.Mohan Jain (Eds): *Protocols for In Vitro Cultures and Secondary Metabolite Analysis of Aromatic and Medicinal Plants*, Second Edition, 978-1-4939-3330-3, 326657_2_En, (22)

Franklin G., Beerhues L., Cellárová E. (2016). Molecular and biotechnological advancements in *Hypericum* species. *Frontiers in Plant Science*. 7: 1687. DOI: 10.3389/fpls.2016.01687



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Invited talks, courses and schools:

- Only best specialists in the field
- Ask local scientific community
- Create meetings that will facilitate exchange of ideas and building up cooperations

HR management:

- Try to secure projects for all research staff
- Cooperate strongly with project manager
- Language and culture difference problems
- Team members expectations

Project sustainability

- Host politics
- Cooperations
- New research grants



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Invited talks:



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Make it public:



6 news

Research Europe, 22 October 2015

interview robert malinowski

In the hot seat

Robert Malinowski, who was awarded an ERA Chair earlier this year, talks to **James Field** about the challenge of establishing a plant science centre in Poznan.



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Visiting students and researchers:



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Conferences and meetings:



ŁÓDŹ • 19-22 września 2016



ptgc POLSKIE TOWARZYSTWO GENETYKI CZŁOWIEKA

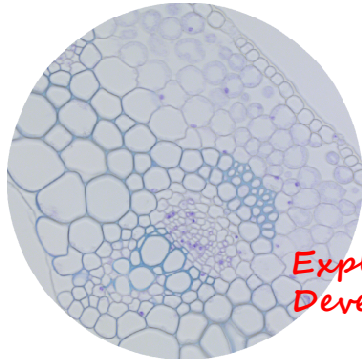


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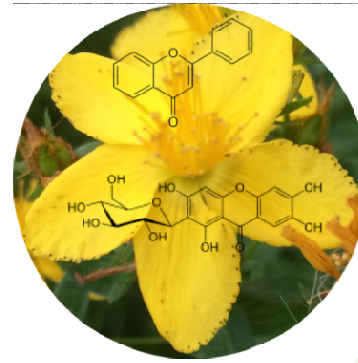


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Exploring Plant Developmental Plasticity



Developing New Tools and Resources to Increase the Efficacy of Biomedically Active Substances



Exploring Plant Secondary Cell Wall Development for Industrial Applications



Understanding Processes Underlying Plant-Pathogen Interactions



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SUSTAINABILITY:



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