

Univerzita Palackého v Olomouci
PŘÍRODOVĚDECKÁ FAKULTA



PODKLADY K ZAHÁJENÍ HABILITAČNÍHO ŘÍZENÍ

Životopis a výčet publikační, vědecké a pedagogické činnosti

Georgios Komis, PhD

Obor: Molekulární a buněčná biologie

Palacký University Olomouc
FACULTY OF SCIENCE



DOCUMENTS FOR THE INITIATION OF THE HABILITATION

Curriculum vitae, publication record, scientific and pedagogical activities

Georgios Komis, PhD

Program: Molecular and Cell Biology

Contents

General	5
Personal Information	5
Education	5
Research Interests.....	5
Requirements	6
Employment	7
Related to research	7
Research Stays Abroad.....	7
Employment unrelated to research	7
Funding, Awards, Distinctions	8
Grants and Projects	8
Fellowships, awards, distinctions	8
Scientific output/Scientometrics	9
Overview	9
Analytical Publication Information	10
Original Publications/Invited Reviews	10
Pending publication	13
Book Chapters.....	13
Pending book chapter.....	13
Book.....	13
Conference Presentations/Invited lectures	14
Webinar presentation	17
Other scientific activities	17
Teaching	18
Thesis Supervision	18
PhD Thesis supervision.....	18
PhD Thesis consultation	18
Bachelor Thesis supervision	18
Master Thesis supervision.....	18
Teaching subjects within the Study Program Biotechnology and Gene Engineering (Palacký University Olomouc)	19
Analytical teaching activities at Palacký University Olomouc	19
Teaching duties elsewhere	19
Attachments	21

General

Personal Information

Date and place of birth	20.09.1973, Athens, Greece
Languages	Greek (Native), English (Fluent), German (Basic, A2 level), French (Basic, Certificate)
Working Address	Šlechtitelů 27, Olomouc, 783 71
Home Address	Wanklova 744/6, Olomouc, 779 00
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e-mail	georgios.komis@upol.cz
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Education

1989-1991	Lyceum, Ziridis School, Athens, Greece
1993-1998	Pregraduate studies, Faculty of Science, Department of Biology, National and Kapodistrian University of Athens, Greece
1999-2006	PhD thesis, Faculty of Science, Department of Biology, National and Kapodistrian University of Athens, Greece
2002-2003	Mandatory military service, Medical Corp

Research Interests

Microtubule organization and dynamics in plants, cell growth directionality and cytomorphogenesis, cell division plane orientation in plants, plant mitogen activated protein kinase signaling, superresolution microscopy, confocal laser scanning microscopy, spinning disc microscopy

Requirements

Requirement	Recommended Number	George Komis
Number of publications in scientific journals	20-25	33
Number of monographs	0-1	1
Citations	10	546
Systematic pedagogical work	3 years	3 years (Olomouc, Czech Republic), 3 years (Athens, Greece)

Požadavek

Požadavek	Doporučený počet	George Komis
Počet publikací ve vědeckých periodikách	20-25	33
Počet monografií	0-1	1
Citace a ohlasy	10	546
Soustavná pedagogická práce na VŠ	3 roky	3 roky (Olomouc, Česká Republika), 3 roky (Atény, Řecko)

Employment

Related to research

2006-2007 Hellenic Ministry of Education and Religious Affairs and EU funded post-doctoral fellowship Pythagoras I, Department of Biology, Faculty of Sciences, National and Kapodistrian University of Athens, Greece

2010-2011 Hellenic Ministry of Education and Religious Affairs and EU funded post-doctoral fellowship Pythagoras II, Department of Biology, Faculty of Sciences, National and Kapodistrian University of Athens, Greece

2012-today Junior Researcher, Centre of the Region Haná for Biotechnological and Agricultural Research, Department of Cell Biology, Faculty of Science, Palacký University, Olomouc, Czech Republic

Research Stays Abroad

1999, 2000. Leibniz Institute for Aging Research (Formerly Institute of Molecular Biotechnology), Jena, Germany (4 months)

2004, 2005. Biozentrum Klein Flottbek, University of Hamburg, Hamburg, Germany (3 months)

2008-2009. Institute of Cellular and Molecular Botany, University of Bonn, Bonn, Germany (2 years)

2013. Core Facility Cell Imaging and Ultrastructure Research. University of Vienna, Vienna, Austria (1 month)

2014. Max Planck Institute of Molecular Cell Biology and Genetics. Dresden, Germany (4 days)

2014. Department of Botany. School of Biology. Aristotelian University of Thessaloniki, Thessaloniki, Greece (1 week)

2016. Carl Zeiss, Demo Center, Munich, Germany (1 week)

Employment unrelated to research

1991-1993. Technical employer, Geotechnical Laboratories, OTM (part time employment).

1998-1999, 2006-2007. Technical employer, Geotechnical Laboratories, OTM (part time employment).

2006-2008, 2010, 2011. Free lancer – scientific translator, collaborating with Mendor Editions S.A (www.mendor.gr).

Funding, Awards, Distinctions

Grants and Projects

2016-2018 16-24313S Revisiting microtubule organization during plant cell division, growth and morphogenesis by superresolution microscopy (GAČR, Czech Republic; PI: Georgios Komis)

2014-2018 National Sustainability Program (NPU I), LO1204, Sustainable development of research of the Center of the Region Hana, (team member, Czech Republic)

2012-2015 INTERHANA (project number OP VK CZ.1.07/2.3.00/20.0165) Supporting the involvement of the Haná Center Research Team in international cooperation; (team member, OPVK, Czech Republic – European Union)

2011-2015 P501/11/1764 Stress and signaling in plants using mitogen-activated protein kinases: from basic Arabidopsis research to biotechnology crop applications (team member, GAČR, Czech Republic; PI: Professor Jozef Šamaj)

2015-2017 15-19284S Study of phosphorylation of KATANIN1 and microtubule severing in Arabidopsis (team member, GAČR, Czech Republic; PI: Professor Jozef Šamaj)

Fellowships, awards, distinctions

2000-2002: Greek National Scholarship Foundation, predoctoral fellow with distinction (3 years)

2007-2009: Alexander von Humboldt, postdoctoral fellow (2 years)

2010: Publication Beck M*, **Komis G***, Müller J, Mettbach U, Menzel D, Šamaj J. (2010). Arabidopsis homologs of nucleus- and phragmoplast-localized kinase 2 and 3 and mitogen-activated protein kinase 4 are essential for microtubule organization. Plant Cell 22:755 was acknowledged by Faculty of 1000

2013: Recipient of Director of CRH prize for publication

2014: Recipient of Rector (Palacký University) prize for book co-editorial

2014: Recipient of Director of CRH prize for publication

2014: Recipient of Dean of Faculty of Sciences (Palacký University) prize for publication

2015: Recipient of Director of CRH prize for publication

2015: Recipient of Dean of Faculty of Sciences (Palacký University) prize for publication.

2016: Recipient of Director of CRH prize for project

Scientific output/Scientometrics

Overview

Total number of impacted publications ¹	32
Total number of non-impacted publications ¹	1
Total number of book chapters	4
Total number of edited books	1
Total number of conference presentations	30
Cumulative impact factor ²	218.515
Total number of citations ² (excluding self citations as of March 6, 2018)	546
H-index ²	16

¹Source: <https://www.ncbi.nlm.nih.gov/pubmed/>

²Source: Web of Science. Impact factors are those of the year of publication

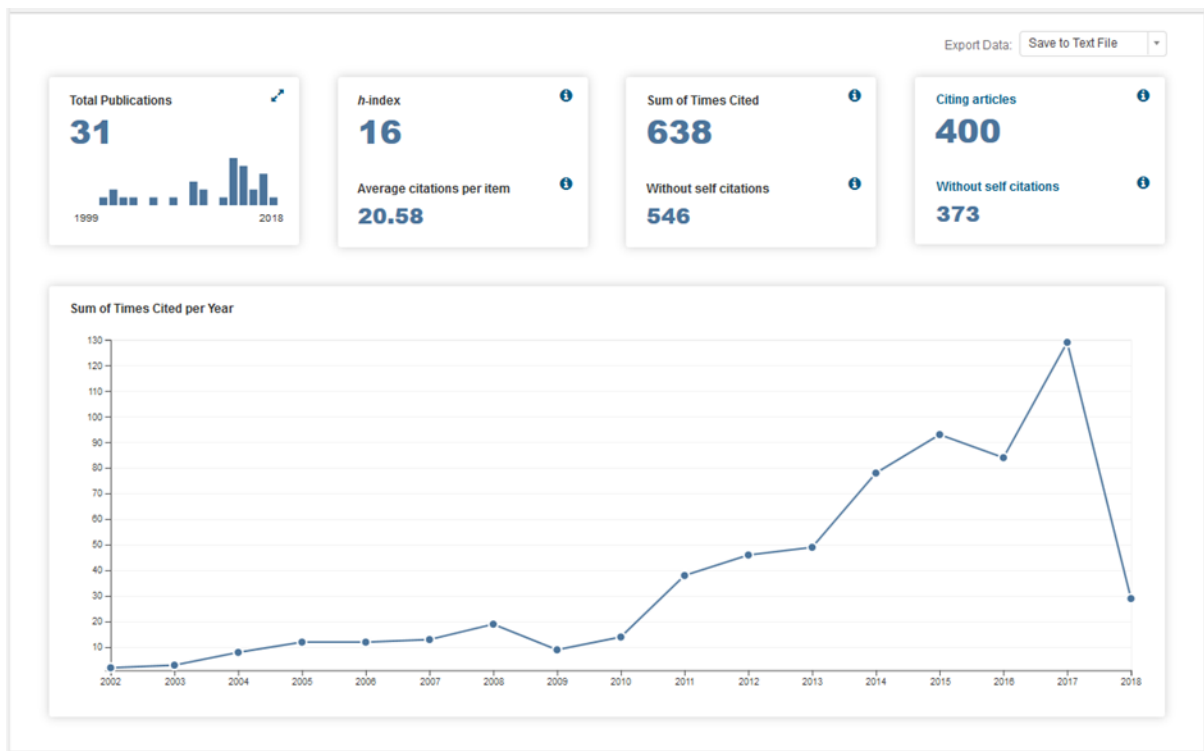


Figure 1. Quantitative overview of scientific output according to Web of Science, as of the 28th February, 2018 (it may exclude very recent publications).

Analytical Publication Information

Original Publications/Invited Reviews

Komis G, Šamajová O, Ovečka M, Šamaj J (2018). Cellular and Developmental Functions of Mitogen-Activated Protein Kinases. *Annual Review of Plant Biology* 69, published online February 2018, doi: 10.1146/annurev-arplant-042817-040314. IF: 23.654 (cited times: 0)

Komis G, Novák D, Ovečka M, Šamajová O, Šamaj J (2018). Advances in imaging plant cell dynamics. *Plant Physiology* 176:80. IF: 6.456 (cited times: 1)

Luptovčiak I, **Komis G**, Takáč T, Ovečka M, Šamaj J (2017). Katanin: a sword cutting microtubules for cellular, developmental and physiological purposes. *Frontiers in Plant Science* 8:1982. doi: 10.3389/fpls.2017.01982. IF: 4.291 (cited times: 0)

Komis G*, Luptovčiak I*, Ovečka M*, Samakovli D, Šamajová O, Šamaj J (2017) Katanin Effects on Dynamics of Cortical Microtubules and Mitotic Arrays in *Arabidopsis thaliana* Revealed by Advanced Live-Cell Imaging. *Frontiers in Plant Science* 8:866. doi: 10.3389/fpls.2017.00866 IF: 4.291 *equal first co-authorship (cited times: 5)

Yu M, Liu H, Dong Z, Xiao J, Su B, Fan L, **Komis G**, Šamaj J, Lin J, Li R (2017) The dynamics and endocytosis of Flot1 protein in response to flg22 in *Arabidopsis*. *Journal of Plant Physiology* 215:73 IF: 3.121 (cited times: 2)

Luptovčiak I, Samakovli D, **Komis G**, Šamaj J (2017) KATANIN 1 Is Essential for Embryogenesis and Seed Formation in *Arabidopsis*. *Frontiers in Plant Science* 8:728. doi: 10.3389/fpls.2017.00728 IF: 4.291 (cited times: 2)

von Wangenheim D, Rosero A, **Komis G**, Šamajová O, Ovečka M, Voigt B, Šamaj J (2016). Endosomal interactions during root hair growth. *Frontiers in Plant Science* doi: 10.3389/fpls.2015.01262 IF: 4.291 (cited times: 1)

Novák D, Kuchařová A, Ovečka M, **Komis G**, Šamaj J (2016) Developmental Nuclear Localization and Quantification of GFP-Tagged EB1c in *Arabidopsis* Root Using Light-Sheet Microscopy. *Frontiers in Plant Science* 6:1187. doi: 10.3389/fpls.2015.01187 IF: 4.291 (cited times: 2)

Komis G, Šamajová O, Ovečka M, Šamaj J (2015) Superresolution microscopy techniques open new horizons. *Trends in Plant Science*, 20:834 (Invited Review) IF: 10.899 (cited times: 18)

Ovečka M, Vaskebová L, **Komis G**, Luptovčiak I, Smertenko A, Šamaj J (2015) Preparation and imaging of plant specimens for developmental and cellular light-sheet microscopy. *Nature Protocols*, 10: 1234 IF: 9.646 (cited times: 14)

Komis G, Mistrík M, Šamajová O, Ovečka M, Bártek J, Šamaj J (2015) Super-resolution live imaging of plant cells using structured illumination microscopy. *Nature Protocols*, 10: 1248 IF: 9.646 (cited times: 20)

Bekešová S, **Komis G**, Křenek P, Vyplelová P, Ovečka M, Luptovčíak I, Illés P, Kuchařová A, Šamaj J (2015) Monitoring protein phosphorylation by acrylamide pendant Phos-Tag™ in various plants. *Frontiers in Plant Science* 6:336. doi: 10.3389/fpls.2015.00336 IF: 4.495 (cited times: 5)

Křenek P, Šamajová O, Luptovčíak I, Doskočilová I, **Komis G**, Šamaj J (2015) Transient plant transformation mediated by *Agrobacterium tumefaciens*: principles, methods and applications. *Biotechnology Advances* 33: 1024 IF: 9.848 (cited times: 13)

Komis G, Luptovčíak I, Doskočilová A, Šamaj J (2015) Biotechnological aspects of cytoskeletal regulation in plants. *Biotechnology Advances* 33: 1043 IF: 9.848 (cited times: 4)

Berson T, von Wangenheim D, Takáč T, Šamajová O, Rosero A, Ovečka M, **Komis G**, Stelzer E, Šamaj J (2014) Trans-Golgi network localized small GTPase RabA1d is involved in cell plate formation and oscillatory root hair growth. *BMC Plant Biology*, 14:252. doi: 10.1186/s12870-014-0252-0 IF: 3.813 (cited times: 19)

Takáč T, Šamajová O, Pechan T, Košútová P, Husičková A, Vadovič P, **Komis G**, Šamaj J (2014) Proteomic, biochemical and histochemical analyses reveal increased FeSOD abundance and activity, leading to oxidative stress resistance of *Arabidopsis anp2anp3* double MAPKKK mutant. *Journal of Proteome Research*, 13: 5347 IF: 4.245 (cited times: 6)

Lang I, Sassmann S, **Komis G** (2014) Plasmolysis: Loss of turgor and beyond. *Plants*. 3: 583 Non Impacted (cited times: 6)

Smékalová V*, Luptovčíak I*, **Komis G***, Šamajová O, Ovečka M, Doskočilová A, Takáč T, Vadovič P, Novák O, Pechan T, Ziemann A, Košútová P, Šamaj J (2014) Involvement of YODA and MPK6 in *Arabidopsis* post-embryonic root development by auxin upregulation and cell division plane orientation. *New Phytologist*, 203:1175. *equal first co-authorship, IF: 7.672 (cited times: 26)

Komis G, Mistrík M, Šamajová O, Doskočilová A, Ovečka M, Illés P, Bártek J, Šamaj J (2014) Dynamics and organization of cortical microtubules as revealed by superresolution structured illumination microscopy. *Plant Physiology*, 165:129. IF: 6.841 (cited times: 20)

Ovečka M, Takáč T, **Komis G**, Vadovič P, Bekešová S, Doskočilová A, Smékalová V, Luptovčíak I, Šamajová O, Schweighofer A, Meskiene I, Jonak C, Křenek P, Lichtscheidl I, Škultéty L, Hirt H, Šamaj J (2014) Salt-induced subcellular kinase relocation and seeding susceptibility caused by overexpression of *Medicago* SIMKK in *Arabidopsis*. *Journal of Experimental Botany*, 65:2335. IF: 5.526 (cited times: 16)

Smékalová V, Doskočilová A, **Komis G**, Šamaj J (2014) Cross talk between MAPK modules, secondary messengers and hormones during abiotic stress signalling in plants. *Biotechnology Advances*, 32:211. IF: 9.015 (cited times: 47)

Šamajová O*, **Komis G***, Šamaj J (2013) Emerging topics in plant MAPK cell biology. Trends in Plant Science 18:140. (Invited Review) *equal first co-authorship, IF: 13.479 (cited times: 31)

Komis G, Illés P, Beck M, Šamaj J (2011) Microtubules and mitogen-activated protein kinase signalling. Current Opinion in Plant Biology 14:650 (Invited Review) IF: 9.272 (cited times: 36)

Beck M*, **Komis G***, Ziemann A, Menzel D, Šamaj J (2011) Mitogen-activated protein kinase 4 is involved in the regulation of mitotic and cytokinetic microtubule transitions in Arabidopsis thaliana. New Phytologist 189:1069. *equal first co-authorship, IF: 6.645 (cited times: 55)

Beck M*, **Komis G***, Müller J, Mettbach U, Menzel D, Šamaj J (2010) Arabidopsis homologs of nucleus- and phragmoplast-localized kinase 2 and 3 and mitogen-activated protein kinase 4 are essential for microtubule organization. Plant Cell 22:755, *equal first co-authorship, IF: 9.396 (cited times: 74)

Panteris E, **Komis G**, Adamakis I-DS, Šamaj J, Bosabalidis AM (2010) MAP65 in tubulin/colchicine paracrystals of Vigna sinensis root cells: possible role in the assembly and stabilization of atypical tubulin polymers. Cytoskeleton 67: 152, IF: 2.657 (cited times: 9)

Müller J, Beck M, Mettbach U, **Komis G**, Hause G, Menzel D, Šamaj J (2010) Arabidopsis MPK6 is involved in cell division plane control during early root development, and localizes to the pre-prophase band, phragmoplast, trans-Golgi network and plasma membrane. Plant Journal 61(2):234, IF: 6.948 (cited times: 58)

Komis G, Quader H, Galanopoulou D, Apostolakos P, Galatis B (2008) Phospholipase C signaling involvement in microtubule assembly and activation of the mechanism regulating protoplast volume in plasmolyzed root cells of Triticum turgidum. New Phytologist 178: 267, IF: 5.178 (cited times: 8)

Komis G, Quader H, Apostolakos P, Galatis B (2006) Microtubule-dependent protoplast volume regulation in plasmolysed root-tip cells of Triticum turgidum: involvement of phospholipase D. New Phytologist 171: 737, IF: 4.245 (cited times: 23)

Komis G, Apostolakos P, Gaitanaki C, Galatis B (2004) Hyperosmotically induced accumulation of a phosphorylated p38-like MAPK involved in protoplast volume regulation of plasmolyzed wheat root cells. FEBS Letters 573(1-3):168, IF: 3.843 (cited times: 23)

Komis G, Apostolakos P, Galatis B (2003) Actomyosin is involved in the plasmolytic cycle: gliding movement of the deplasmolyzing protoplast. Protoplasma 221:245, IF: 2.206 (cited times: 16)

Komis G, Apostolakos P, Galatis B (2002) Hyperosmotic stress induces formation of tubulin microtubules in root-tip cells of Triticum turgidum: their probable involvement in protoplast volume control. Plant & Cell Physiology 43:911, IF: 3.084 (cited times: 40)

Komis G, Apostolakos P, Galatis B (2002) Hyperosmotic stress-induced actin filament reorganization in leaf cells of Chlorophyton comosum. *Journal of Experimental Botany* 53:1699, IF: 2.852 (cited times: 40)

Komis G, Apostolakos P, Galatis B (2001) Altered patterns of tubulin polymerization in dividing leaf cells of Chlorophyton comosum after a hyperosmotic treatment. *New Phytologist* 149: 193, IF: 2.530 (cited times: 17)

Pending publication

Novák D, Vadovič P, Ovečka M, Šamajová O, **Komis G**, Colcombet J, Šamaj J. (2018) Gene expression pattern and protein localization of Arabidopsis phospholipase D alpha 1 revealed by advanced light-sheet and super-resolution microscopy. *Frontiers In Plant Science*, in press, <https://www.frontiersin.org/articles/10.3389/fpls.2018.00371/abstract>, IF: 4.291 (cited times: 0)

Book Chapters

Šamajová O, **Komis G**, Šamaj J (2014) Immunofluorescent localization of MAPKs and colocalization with microtubules in Arabidopsis seedling whole-mount probes. *Methods in Molecular Biology* 1171:107 (cited times: 5)

Komis G, Takáč T, Bekešová S, Vadovič P, Šamaj J (2014) Affinity-based SDS PAGE identification of phosphorylated Arabidopsis MAPKs and substrates by acrylamide pendant Phos-Tag™. *Methods in Molecular Biology* 1171:47 (cited times: 3)

Komis G, Apostolakos P, Galatis B (1998) Effects of IAA on Mesophyll Cell Morphogenesis of *Triticum turgidum*. *Progress in Botanical Research*. Tsekos I and Moustakas M, eds. Springer Science (via Kluwer Academic Publishers), pp 599-602. ISBN: 978-94-010-6219-0 (cited times: 0)

Pending book chapter

Vypelová P, Ovečka M, **Komis G**, Šamaj J (2018) Advanced microscopy methods for mitotic spindle and phragmoplast bioimaging in plants. *Methods of Cell Biology* 2018, IF: 1.306 (cited times: 0)

Book

Komis G and Šamaj J, Eds. (2014) *Plant MAP Kinases: Methods and Protocols*. *Methods in Molecular Biology Series*, Humana Press ISBN: 978-1-4939-0921-6

Conference Presentations/Invited lectures

2018: **Komis G**, Šamajová O, Ovečka M, Šamaj J. Superresolution imaging of the plant cytoskeleton. APPN Workshop on Modern Plant Microscopy. 16 February, Vienna, Austria.

2017: **Komis G**, Ovečka M Samakovli D, Luptovčiak I, Šamajová O, Šamaj J. Involvement of KATANIN1 in interphase and mitotic microtubule dynamics. Green for Good IV. Biotechnology of Plant Products. 19-22 June, Olomouc, Czech Republic.

2017: **Komis G**, Šamajová O, Ovečka M, Šamaj J. Structured illumination microscopy strategies for live plant cell imaging. 17th International ELMI Meeting, 23-26 May, Dubrovnik, Croatia.

2017: Ovečka M, Novák D, Kuchařová A, **Komis G**, Šamaj J. Light sheet microscopy of tissue-specific and developmentally regulated nuclear localization of END BINDING protein 1c in root-tip cells of Arabidopsis thaliana. 17th International ELMI Meeting, 23-26 May, Dubrovnik, Croatia.

2017: Šamajová O, **Komis G**, Mistrík M, Ovečka M, Bartek J, Šamaj J. Dynamic imaging of plant cortical microtubules using structured illumination microscopy. 17th International ELMI Meeting, 23-26 May, Dubrovnik, Croatia.

2016: Šamaj J, Ovečka M, **Komis G**, Šamajová O. Advanced bioimaging of living plants. 12th International Congress of Cell Biology. 21-25 July, Prague, Czech Republic.

2016: Ovečka M, von Wangenheim D, Rosero A, **Komis G**, Šamajová O, Berson T, Šamaj J. Small Rab GTPases in membrane trafficking, endosomal interactions and growth oscillations in Arabidopsis root hairs. 12th International Congress of Cell Biology. 21-25 July, Prague, Czech Republic.

2016: **Komis G**, Kuchařová A, Ovečka M, Novák D, Šamaj J. Developmental nuclear localization and quantification of GFP-tagged EB1c in Arabidopsis root with light-sheet microscopy. 12th International Congress of Cell Biology. 21-25 July, Prague, Czech Republic.

2016: Šamajová O, Ovečka M, Vypelová P, **Komis G**, Bekešová S, Luptovčiak I, Vadovič P, Hirt H, Šamaj J. Salt stress-induced subcellular kinase relocation and enhanced seedling sensitivity to salt induced by overexpression of Medicago SIMKK in Arabidopsis. 12th International Congress of Cell Biology. 21-25 July, Prague, Czech Republic.

2016: **Komis G**. Importance of YODA and MPK6 in cell division plane orientation during post-embryonic Arabidopsis root growth. Plant Biology Europe. EPSO/FESPB 2016 Congress. 26-30 June Prague, Czech Republic.

2016: **Komis G**, Kuchařová A, Ovečka M, Mistrík M, Šamajová O, Bartek J, Šamaj J. Advanced imaging of plant cortical microtubule dynamics and organization. EMBO Conference Microtubules: From Atoms to Complex Systems. 29 May – 1 June Heidelberg, Germany.

2016: Kuchařová A, Ovečka M, Novák D, **Komis G**, Šamaj J. Developmental and quantitative light-sheet microscopy imaging of GFP-tagged EB1c in nuclei of plant roots. EMBO Conference Microtubules: From Atoms to Complex Systems. 29 May – 1 June Heidelberg, Germany.

2015: **Komis G**, Beck M, Šamajová O, Ovečka M, Šamaj J. Developmental role of ANP MAPKKs and MPK4 MAPK by targeting microtubule dynamics and organization. EMBO Conference: Signaling in Plant Development. 20-24 September, Brno, Czech Republic.

2015: Ovečka M, Smékalová V, **Komis G**, Luptovčiak I, Šamajová O, Šamaj J. Involvement of mitogen-activated protein kinase signaling in Arabidopsis post-embryonic root and plant development. EMBO Conference: Signaling in Plant Development. 20-24 September, Brno, Czech Republic.

2015: **Komis G**. Invited lecture. Biotechnological potential of plant cytoskeleton engineering. Green 4 Good III. 15-18 June, Olomouc, Czech Republic.

2015: **Komis G**, Mistrik M, Šamajová O, Ovečka M, Kuchařová A, Novák D, Bartek J, Šamaj J. Live cell structured illumination microscopy imaging. 15-18 June, Olomouc, Czech Republic.

2014: **Komis G**. Invited lecture. Structured illumination microscopy of living plant cells. Department of Botany, Aristotelian University of Thessaloniki, 2 December, Thessaloniki, Greece.

2014: **Komis G**. Invited lecture. Breaking resolution limits: Brought to you live. 6. Metodické dny (6th Methodological Days), Ústav experimentální botaniky AV ČR, v.v.i. a Česká společnost experimentální biologie rostlin (Institute of Experimental Botany and Czech Society of Experimental Plant Biology). 19-22 October, Prague, Czech Republic.

2014: **Komis G**. Invited lecture. Subdiffraction imaging of microtubule dynamics. 12th Conference of PhD Students of Experimental Plant Biology. 4-5 September, Olomouc, Czech Republic.

2014: Lang I, Sassmann S, **Komis G**. Cytoskeletal elements and plasmolysis: stabilisation under exceptional circumstances. Austrian and European Society of Plant Biologists Conference, June, Linz, Austria.

2014: Křenek P, Šamajová O, Luptovčiak I, Doskočilová A, **Komis G**, Šamaj J. Transient plant transformation mediated by *Agrobacterium tumefaciens*: principles, methods and applications. Biotech 2014, 11-14 June, Prague, Czech Republic.

2014: **Komis G**, Doskočilová A, Luptovčiak I, Šamaj J. Invited lecture. Biotechnological Aspects of Cytoskeletal Regulation in Plants. Biotech 2014, 11-14 June, Prague, Czech Republic.

2013: **Komis G**. Invited lecture. Superresolution excursions in plant cell biology. Pushing the limits of plant subcellular imaging. Host: Professor Irene Lichtscheidl, University of Vienna, Vienna, Austria.

2013: Doskočilová A, **Komis G**, Smékalová V, Šamajová O, Ovečka M, Šamaj J. Meristematic function of YODA MAPKKK in regulation of cytokinesis and tissue patterning in primary and lateral roots of *Arabidopsis thaliana*. 7th EPSO Conference, September, Porto Heli, Greece.

2013: **Komis G**, Mistrík M, Šamajová O, Doskočilová A, Illés P, Bártek J, Šamaj J. Bipolar dynamic instability of plant cortical microtubules by superresolution live imaging. 17th EPSO Conference, September, Porto Heli, Greece.

2013: Šamaj J, Ovečka M, Takáč T, Doskočilová A, **Komis G**, Šamajová O, Vadovič P, Křenek P, Hirt H. Overexpression of Medicago kinase SIMKK leads to altered root hair phenotypes and higher susceptibility to salt in *Arabidopsis*. 7th EPSO Conference, September, Porto Heli, Greece.

2013: Doskočilová A, Novák D, **Komis G**, Šamaj J. Mitogen-activated protein kinase-dependent phosphorylation and functional regulation of cytoskeletal End Binding Protein 1c. Olomouc Biotech 2013 Plant Biotechnology: Green for Good II, June, Olomouc, Czech Republic.

2013: **Komis G**, Smékalová V, Šamajová O, Beck M, Müller J, Doskočilová A, Ovečka M, Šamaj J. Involvement of mitogen activated protein kinases in plant cell division, growth and root tissue patterning upstream of microtubule regulation. Olomouc Biotech 2013 Plant Biotechnology: Green for Good II, June, Olomouc, Czech Republic.

2012: **Komis G**, Beck M, Šamaj J. Involvement of *Arabidopsis* MAPKs in the assembly and function of mitotic spindle and phragmoplast of *Arabidopsis thaliana*. 23rd International Conference on *Arabidopsis* Research (ICAR 2012), July, Vienna, Austria.

2012: **Komis G**. Invited Lecture. MAPK-microtubules crosstalk. InterDoc - Internacionalizace doktorských studií, v oboru botanika a fyziologie rostlin, Centre of the Region Haná for Biotechnological and Agricultural Research, Faculty of Science, Palacký University, January, Olomouc, Czech Republic.

2009: Müller J, Beck M, Mettlich U, **Komis G**, Hause G, Menzel D, Šamaj J. *Arabidopsis* MPK6 is involved in cell division plane control during early root development, and localizes to the pre-prophase band, phragmoplast, trans-Golgi network and plasma membrane. 9th Tri-national *Arabidopsis* Meeting, Köln, Germany.

2009: Beck M, **Komis G**, Müller J, Menzel D, Šamaj J. ANP2/ANP3 and MPK4 control the organization of microtubules during diffuse and tip cell growth in *Arabidopsis thaliana* 9th Tri-national *Arabidopsis* Meeting, Köln, Germany.

2005: **Komis G**. 2005. Invited Lecture. Botanisches Kolloquium: Susceptibility of cytoskeletal elements to hyperosmotic stress, Institut für Zelluläre und Molekulare Botanik, Universität Bonn, Kirschallee 1, D53115, Bonn, Germany.

2005: **Komis G**, Apostolakos P, Galatis B. Involvement of PLD and phosphatidic acid in hyperosmotic stress induced microtubule remodeling in *Triticum turgidum*. 10th Conference of the Hellenic Botanical Society, Ioannina, Greece.

2005: **Komis G**, Apostolakos P, Galatis B. Involvement of a MAPK in the hyperosmotic stress response of *Triticum turgidum*. 27th Conference of the Hellenic Society of Biological Sciences, Nafplion, Greece.

2005: **Komis G**, Apostolakos P, Quader H, Galatis B. (2005). Involvement of PLD and phosphatidic acid in the hyperosmotic stress response of *Triticum turgidum*. XVII International Botanical Congress, Vienna, Austria.

2002: **Komis G**, Apostolakos P, Galatis B. Effects of hyperosmotic stress on tubulin polymerization in *Triticum turgidum*. 9th Conference of the Hellenic Botanical Society, Kefalonia, Greece.

2000: **Komis G**, Apostolakos P, Galatis B. Effects of hyperosmotic stress on tubulin polymerization in *Chlorophyton comosum*. 8th Conference of the Hellenic Botanical Society, Patra, Greece.

1998: **Komis G**, Apostolakos P, Galatis B. (1998). Effects of IAA on mesophyll cell morphogenesis of *Triticum turgidum*. 1st Balkan Botanical Congress, Thessaloniki, Greece.

Webinar presentation

2016: Chen B-C, **Komis G**, Rosazza C. Invited webinar presentation on live applications of structured illumination microscopy in plants. Webinar organized by Science (AAAS) and Andor. Webinar title: The emergence of structured illumination microscopy: From home-built to commercial solutions. Science Webinar Series. Science 354:1055 (<http://science.sciencemag.org/content/354/6315/1055.2>)

Other scientific activities

Ad hoc reviewer for the following peer reviewed journals: Protoplasma, Pesticide Physiology & Biochemistry, Plant Signaling and Behavior, Plant Biology, Physiologia Plantarum, Molecular Plant, PLoS One, Annals of Botany, Marine Ecology Progress Series, Biochimica et Biophysica Acta: Biomembranes, Plant Cell Reports, International Journal of Molecular Sciences, Plant & Cell Physiology, Journal of Natural Products, Annual Review & Research in Biology, Planta, BMC Journal of Biological Research, Plant Molecular Biology, Nature Communications.

Managing Editor: BMC Journal of Biological Research (IF: 1.200)

Teaching

Thesis Supervision

PhD Thesis supervision

Supervisor for PhD student Tereza Vavrdová on the topic: “Cell division plane regulation in plants by MAPK cascades” (started September 2016)

PhD Thesis consultation

Consultant for PhD student Tereza Tichá on the topic: “Interaction of HSP90 proteins and MAPK signaling pathway in the regulation of Arabidopsis development” (started September 2016)

Bachelor Thesis supervision

Supervisor for Bachelor Student Jana Vinohradská on the topic “Phenotypic characterization and microtubule organization in selected MAPK mutants” (finished 12/2014)

Supervisor for Bachelor student Renata Šnaurová on the topic “Role of GSK inhibitors on mitotic progression of plants” (finished 5/2017)

Supervisor for Bachelor student Ivana Náročná on the topic “Localization of microtubules and MAPKs by SIM” (finishing 5/2018)

Supervisor for Bachelor student Nela Kovářová on the topic “Superresolution microscopy imaging of living and fixed plant cells” (finishing 5/2018)

Supervisor for Bachelor student Zuzana Korchanová on the topic “Effect of inhibitor monastrol on kinesin-5 motor protein activity during mitosis in *Arabidopsis thaliana*” (finishing 5/2018)

Supervisor for Bachelor student Natalie Cihlářová on the topic “Superresolution microscopy of plant cytoskeletal proteins” (finishing 5/2019)

Master Thesis supervision

Supervisor for Master’s Student Pavlína Floková on the topic “Developmental role of Arabidopsis MAP kinase MPK6” (finished at 8/2016)

Supervisor for Master’s Student Renata Šnaurová on the topic “Protein phosphorylation in the regulation and localization of *Arabidopsis thaliana* MAP65-2 and MAP65-3” (finishing 5/2020)

Teaching subjects within the Study Program Biotechnology and Gene Engineering (Palacký University Olomouc)

Analytical teaching activities at Palacký University Olomouc

Subject	Course Status	Semester	Level	Role	Hours/week	Number of students (Academic year) ³
CRH/BTI Biotechnological and Biochemical Information	A	SS ¹	BSc	Guarantor/Lecturer	2 (seminar)	39 (2015/2016) 34 (2016/2017) 14 (2017/2018)
CRH/MM Microscopy Methods and Biotechnological applications	A	SS	BSc	Lecturer, tutorial lecturer, seminar lecturer	1 (lecture)/2 (practical)/1 (seminar)	37 (2014/2015) 40 (2015/2016) 26 (2016/2017) 16 (2017/2018)
CRH/MIT Modern Techniques of Immunofluorescence	A	WS ²	BSc	Guarantor/Lecturer	3 (seminar)	34 (2015/2016) 33 (2016/2017) 15 (2017/2018)
CRH/PKR Plant Tissue Cultures	A	WS	BSc	Guarantor/Lecturer	2 (lecture)/2 (practical)	29 (2016/2017) 31 (2017/2018)
CRH/BSB Stress Biology and Biotechnology	A	SS	BSc	Guarantor/Lecturer	1 (lecture)/2 seminar	34 (2015/2016) 33 (2016/2017) 14 (2017/2018)
CRH/SB Systems Biology	B	WS	MSc	Guarantor/Lecturer	2 (lecture)	1 (2014/2015) 6 (2015/2016) 0 (2016/2017) 8 (2017/2018)
CRH/BRB Bioimaging of Plant Cells	B	SS	MSc	Tutorial lecturer	1 (lecture)/2 (practical)	5 (2014/2015) 1 (2015/2016) 0 (2016/2017) 8 (2017/2018)
CRH/CS Cytoskeleton and Signalling	B	SS	MSc	Guarantor/Lecturer	2 (lecture)/1 (seminar)	4 (2014/2015) 3 (2015/2016) 1 (2016/2017) 9 (2017/2018)

¹SS: Summer semester, ²WS: Winter semester, ³Source: <https://stag.upol.cz/portal/>

Teaching duties elsewhere

2000-2003. Teaching assistant in laboratory courses of Introductory Botany, Department of Biology, Faculty of Science, National and Kapodistrian University of Athens, Greece.

2000 Winter Semester (12 weeks in total): 3 hours per week, 30 students (1 laboratory course per week)

2001 Winter Semester (12 weeks in total): 6 hours per week, 60 students (2 laboratory courses per week)

2002 Winter Semester (12 weeks in total): 3 hours per week, 30 students (1 laboratory course per week)

2003 Winter Semester (12 weeks in total): 9 hours per week, 90 students (3 laboratory courses per week)

Attachments

1. Official translation of the BSc diploma (by Translation Service, Ministry of Foreign Affairs, Hellenic Republic)
2. Official translation of the PhD diploma (by Translation Service, Ministry of Foreign Affairs, Hellenic Republic)
3. Confirmation of contribution to publication(s), Professor Jozef Šamaj, Centre of the Region Haná for Biotechnological and Agricultural Research, Department of Cell Biology, Faculty of Science, Palacký University, Olomouc, Czech Republic (contact for confirmation: jozef.samaj@upol.cz)
4. Confirmation of contribution to publication(s), Professor Jinxing Lin, College of Biological Science, Beijing Forestry University, China (contact for confirmation: linjx@ibcas.ac.cn)
5. Confirmation of contribution to publication(s), Assoc. Professor Emmanuel Panteris, School of Biology, Aristotelian University of Thessaloniki, Greece (contact for confirmation: epanter@bio.auth.gr)
6. Confirmation of contribution to publication(s), Assoc. Professor Miroslav Ovečka, Centre of the Region Haná for Biotechnological and Agricultural Research, Department of Cell Biology, Faculty of Science, Palacký University, Olomouc, Czech Republic (contact for confirmation: miroslav.ovecka@upol.cz)
7. Confirmation of contribution to publication(s), Assist. Professor Tomáš Takáč, Centre of the Region Haná for Biotechnological and Agricultural Research, Department of Cell Biology, Faculty of Science, Palacký University, Olomouc, Czech Republic (contact for confirmation: tomas.takac@upol.cz)
8. Confirmation of teaching duties in Greece, Professor Costas Thanos, Section of Botany, Department of Biology, National and Kapodistrian University of Athens, Greece (contact for confirmation: cthanos@biol.uoa.gr)