

Georgios Skretas

Research Assistant Professor

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Professional Experience

- 2013 – Present** National Hellenic Research Foundation - Institute of Biology, Medicinal Chemistry & Biotechnology, Athens - Greece
Research Assistant Professor
- 2009 – 2012** National Hellenic Research Foundation - Institute of Biology, Medicinal Chemistry & Biotechnology, Athens - Greece
Research Lecturer
- 2006 – 2009** The University of Texas at Austin - Institute for Cellular and Molecular Biology, Austin - Texas - USA
Post-Doctoral Research Associate

Education

- 2001 – 2006** Ph.D. in Chemical Engineering
Princeton University, USA
- 1999 – 2001** Master's degree in Chemical Engineering
Princeton University, USA
- 1993 – 1998** Bachelor's degree in Chemical Engineering
National Technical University of Athens, Greece

Awards and Distinctions

- 2015** Latsis Foundation Scientific Project Award
- 2013-present** Elected Delegate of Greece to the Scientific Committee of the Section of Applied Biocatalysis of the European Federation of Biotechnology
- 2012-2015** "ARISTEIA" ("Excellence") Award – General Secretariat of Research and Technology – Greece
- 2013** Latsis Foundation Scientific Project Award
- 2011-2015** Marie Curie Fellowship - FP7 PEOPLE International Re-integration Grant

Teaching Experience

2010-2014	National Hellenic Research Foundation Principal Supervisor of three (3) post-doctoral researchers, five (5) PhD candidates, and six (6) undergraduate research assistants
March 2012	University of Belgrade, Faculty of Chemistry, Belgrade, Serbia Guest Lecturer Course: "Molecular Biotechnology"
October 2011	Örebro University, School of Science and Technology, Örebro Life Science Centre, Örebro, Sweden Guest Instructor Course: "Workshop on Systems Biology"
January 2004 – May 2004	Princeton University, Department of Chemical Engineering, Princeton –New Jersey, USA Teaching Assistant (with Profs. J. Benziger & J. D. Carbeck) Course: "Chemical Engineering Laboratory"
September 2003 – January 2004	Princeton University, Department of Chemical Engineering, Princeton – New Jersey, USA Teaching Assistant (with Prof. David W. Wood) Course: "An Introduction to the Principles of Chemical Engineering"
January 2001 – May 2001	Princeton University, Department of Chemical Engineering, Princeton –New Jersey, USA Teaching Assistant (with Prof. J. D. Carbeck) Course: "Chemical Reaction Engineering"

Research Interests

- Discovery of potentially therapeutic compounds against protein misfolding diseases (Alzheimer's disease, cancer, amyotrophic lateral sclerosis and others)
- Directed protein evolution
- Enzyme engineering for industrial applications
- Synthetic biology
- Genetic engineering of microorganisms for the production of high-value products
- Development of biosensors of protein conformations/dynamics

Current lab members

Post-doctoral research associates:

1. Dr. Kalliopi Kostelidou

PhD in Biosciences, University of Birmingham, UK

2. Dr. Michael Fasseas

PhD in Agricultural Sciences, Agricultural University of Athens, Greece

3. Dr. Lakshmi Tripathi

PhD in Molecular Biology, Tsinghua University, China

PhD candidates:

1. Mrs. Dimitra Gialama

M.Sc. in Biochemistry, Imperial College London, UK

2. Mrs. Dafni Delivoria

M.Sc. in Chemistry, Loughborough University, UK

3. Mr. Ilias Matis

M.Sc. in Chemistry, University of Edinburgh, UK

4. Mrs. Dimitra Zarafeta

B.Sc. in Chemical Engineering, National Technical University of Athens, Greece

5. Mrs. Stefania Panoutsou

M.Sc. in Molecular Biology and Pathology of Viruses, Imperial College London and St Mary's Hospital, UK

Research assistants:

1. Mr. Athanasios Lampropoulos

M.Sc. in Organismal Studies, Heidelberg University, Germany

2. Mrs. Aliko Papakonstantinou

M.Sc. in Medical Biotechnology, Wageningen University, Netherlands

Undergraduate research assistants:

1. Mr. Dimitris Kissas

School of Chemical Engineering, National Technical University of Athens, Greece

Publications in peer-reviewed journals

15. Skretas, G.*, and Kolisis, F.N.* 2012. Combinatorial approaches for inverse metabolic engineering applications. *Computational and Structural Biotechnology Journal*. 3(4).

* Corresponding author

14. Skretas, G.*, Makino, T.*, Varadarajan, N., Pogson, M., and Georgiou, G. 2012. Multi-copy genes that enhance the yield of mammalian G protein-coupled receptors in *Escherichia coli*. *Metabolic Engineering*. 14(5):591-602

* Equal contribution

13. Makino, T.*, Skretas, G.* and Georgiou, G. 2011. Strain engineering for improved expression of recombinant proteins in bacteria. *Microbial Cell Factories*. 10(1):32

* Equal contribution

** Characterized as "Highly Accessed"

12. Makino, T.*, Skretas, G.*, Kang, T.H., and Georgiou, G. 2011. Comprehensive engineering of *Escherichia coli* for enhanced expression of IgG antibodies. *Metabolic Engineering*. 13(2):241-51.

* Equal contribution

11. Skretas, G., and Georgiou, G. 2010. Simple genetic selection protocol for isolation of overexpressed genes that enhance accumulation of membrane-integrated human G protein-coupled receptors in *Escherichia coli*. *Applied and Environmental Microbiology*. 76(17) : 5852-9

10. Skretas, G., Carroll, S., DeFrees, S., Schwartz, M., Johnson, K.F., and Georgiou., G. 2009. Expression of active human sialyltransferase ST6GalNAcI in *Escherichia coli*. *Microbial Cell Factories*. 8 : 50

9. Skretas, G., and Georgiou., G. 2009. Genetic analysis of G protein-coupled receptor expression in *Escherichia coli*: Inhibitory role of DnaJ on the membrane integration of the human central cannabinoid receptor, *Biotechnology and Bioengineering*. 102(2) : 357-367

* "Editors' choice" article

8. Skretas, G., and Georgiou, G. 2008. Engineering G protein-coupled receptor expression in bacteria. *Proceedings of the National Academy of Sciences USA*. 105(39) : 14747-14748

7. Link, A.J., Skretas, G., Strauch, E.-M., Chari, N.S., and Georgiou, G. 2008. Efficient production of membrane-integrated and detergent-soluble G protein-coupled receptors in *Escherichia coli*. *Protein Science*. 17(10) : 1857-63

6. Gillies, A., Skretas, G., and Wood, D.W. 2008. Engineering systems for detection and discovery of nuclear hormone-like compounds. *Biotechnology Progress*. 24 : 8-16

5. Skretas, G.*, Meligova, A., Villalonga-Barber, C., Mitsiou, D.J., Alexis, M.N., Michal-Screttas, M., Steele, B.R., Screttas, C.G., and Wood, D.W. 2007. Engineered chimeric enzymes as facile tools for pharmaceutical discovery: Construction of simple bacterial screens for the detection, discovery and assessment of estrogen receptor modulators. *Journal of the American Chemical Society*. 129 : 8443-8457

* Corresponding author

** This work has been featured in a number of press releases:

<http://www.sciencedaily.com/releases/2007/07/070718163719.htm>

<http://www.princeton.edu/engineering/news/publications/equad-news/s07/articles/foh.xml?id=559>

<http://it.moldova.org/news/engineered-e-coli-may-lead-to-new-drugs-59688-eng.html>

http://news.webindia123.com/news/ar_showdetails.asp?id=707200081&cat=&n_date=20070720

4. Skretas, G., and Wood, D.W. 2005. Rapid detection of subtype-selective nuclear hormone receptor binding with bacterial genetic selection. *Applied and Environmental Microbiology*. 71: 8995-8997

3. Skretas, G., and Wood, D.W. 2005. A bacterial biosensor of endocrine modulators. *Journal of Molecular Biology*. 349: 464-474.

*Selected as an Article of Outstanding Interest by "Faculty of 1000"

2. Skretas, G., and Wood, D.W. 2005. Regulation of protein activity with small-molecule-controlled inteins. *Protein Science*. 14: 523-532.

1. Theologitis M., Screttas G.C., Raptis S.G. and Papadopoulos, M.G. 1999. The polarizability and hyperpolarizability of tetrakis(phenylethynyl)ethene and several of its lithiated derivatives. *International Journal of Quantum Chemistry*. 72: 177-187.

Publications in books

1. Wood, D.W., and Skretas, G. 2005. Intein reporter and selection systems. In *Homing endonucleases and inteins*. (eds. M. Belfort, V. Derbyshire, B.L. Stoddard, and D.W. Wood). Springer.

Publications in conference proceedings

1. Papadopoulos, M.G., Screttas, G.C., Raptis, S.G., and Theologitis, M.M., 1999. The non-linear optical properties of some lithium containing Derivatives. *Proceedings SPIE*. 3623, 270-278.

Monographs

1. Skretas, G. 2006. PhD Thesis. Engineering protein-based molecular switches: In vivo regulation of protein activity and the construction of simple biosensors. Department of Chemical Engineering – Princeton University, USA

Patents

1. Wood, D.W. and Skretas, G. Bacterial ligand-binding sensor. United States Patent 7592144

Bibliometric indices

- ❖ Number of publication in peer-reviewed journals: 15
- ❖ Number of citations: 225 (Web of science)/ 235 (Scopus)
- ❖ Hirsch factor (H-factor): 9

Invited presentations

8. December 2013. "Engineering bacteria for the discovery of potentially therapeutic compounds against protein misfolding diseases", ERASynBio Interdisciplinary Workshop on Synthetic Biology, Athens, Greece
7. November 2013. "Molecular evolution of compounds with potentially therapeutic properties against protein misfolding diseases". 6th Swedish-Hellenic Life Sciences Conference. National Hellenic Research Foundation, Athens, Greece.
6. January 2013. "Strain engineering for enhanced accumulation of recombinant membrane proteins in *Escherichia coli*". PepTalk – The Protein Science Week. Palm Springs, California, USA.
5. October 2012. "Molecular evolution of anti-cancer therapeutics". 5th Swedish-Hellenic Life Sciences Conference. National Hellenic research Foundation, Athens, Greece.
4. October 2011. "Directed evolution of small-molecule cancer therapeutics". 4th Swedish-Hellenic Life Sciences Conference & Course on Systems Biology. National Hellenic Research Foundation, Athens, Greece.
3. December 2007. "Engineering *Escherichia coli* for high-level expression of (eukaryotic) integral membrane proteins". Institute of Molecular Biology and Biotechnology – FORTH, Heraklion, Crete, Greece.
2. April 2006. "Engineering protein-based molecular switches: In vivo regulation of protein activity and the construction of simple biosensors". Laboratory of Biotechnology, Department of Chemical Engineering, National Technical University of Athens, Athens, Greece.

1. January 2006. "Engineering protein-based molecular switches: In vivo regulation of protein activity and the construction of simple biosensors". Institute of Chemical Engineering and High-Temperature Chemical Processes, Patras, Greece.

Conference presentations

47. Matis, I., Mavroidi, B., Delivoria, D. C., Papaevgeniou, N., Chondrogianni, N., Pelecanou, M., Skretas, G. 2014. Molecular evolution of compounds with potentially therapeutic effects against protein misfolding diseases. 1st Meeting of the COST PROTEOSTASIS Network. Valencia, Spain. 5-7 November.

46. Zarafeta, D., Ladoukakis, E., Kissas, D., Gudbergdottir, S. R., Gavrilov, S., Chatziioannou, A., Bonch-Osmolovskaya, E. A., Peng, X. Skretas, G., Kolisis, F. N. 2014. Discovery of novel thermostable enzymes of industrial interest by metagenomic screening. 4th International Conference on Novel Enzymes. Ghent, Belgium. 14-17 October.

45. Matis, I., Mavroidi, V., Delivoria, D. C., Pelecanou, M., Skretas, G. 2014. Biosynthesis and high-throughput genetic screening of cyclic peptides with potential therapeutic properties for Alzheimer's disease. SFRR-Europe/IUBMB Advanced School - Biochemical basis of healthy ageing. Spetses, Greece. 22-28 September.

44. Zarafeta, D., Ladoukakis, E., Kissas, D., Gudbergdottir, S. R., Gavrilov, S., Chatziioannou, A., Bonch-Osmolovskaya, E. A., Peng, X. Skretas, G., Kolisis, F. N. 2014. Discovery of novel thermostable enzymes of industrial interest by metagenomic screening. 10th International Congress on Extremophiles. Saint Petersburg, Russia. 7-11 September.

43. Matiadis, D., Skretas, G., Igglessi-Markopoulou, O., Markopoulos, J. 2014. Synthesis of "head-to-tail" cyclic all-L-pentapeptides. 3rd European Peptide Symposium. Sofia, Bulgaria. 31 August – 5 September.

42. Gialama, G., Kolisis, F., and Skretas, G. 2014. Making life better for Escherichia coli cells that overproduce toxic membrane proteins. 16th European Congress on Biotechnology, Edinburgh, United Kingdom. July 13-17.

41. Zarafeta, D., Ladoukakis, E., Kissas, D., Gudbergdottir, S. R., Gavrilov, S., Chatziioannou, A., Bonch-Osmolovskaya, E. A., Peng, X. Skretas, G., Kolisis, F. N. 2014. Discovery of novel thermostable enzymes of industrial interest by metagenomic screening. 16th European Congress on Biotechnology. Edinburgh, Scotland. July 13-16.

40. Matis, I., Delivoria, D., Papaevgeniou, N., Chondrogianni, N., and Skretas, G. 2014. Engineering bacteria for the discovery of potential therapeutic compounds against protein misfolding diseases. 16th European Congress on Biotechnology, Edinburgh, United Kingdom. July 13-17.

39. Skretas, G. -"Engineering bacteria for the discovery of potentially therapeutic compounds against protein misfolding diseases", 64th Congress of the Hellenic Society of Biochemistry and Molecular Biology. Athens, Greece. December 6-8.
38. Matis, I., Delivoria, D. C., Skretas, G. 2013. Biosynthesis and high-throughput genetic screening of cyclic peptides with potential therapeutic properties for Alzheimer's disease. 64th Congress of the Hellenic Society of Biochemistry and Molecular Biology. Athens, Greece. December 6-8. *Poster Presentation Award
37. Gialama, D., Kolisis, F., and Skretas, G. 2013. Engineering Escherichia coli strains that suppress the toxicity of membrane protein overexpression. 64th Congress of the Hellenic Society of Biochemistry and Molecular Biology. December 6-8.
36. Zarafeta, D., Skretas, G. and Kolisis, F. 2013. High-throughput screening of metagenomic libraries for the detection of thermostable hydrolases using E. coli expression systems. 64th Congress of the Hellenic Society of Biochemistry and Molecular Biology. Athens, Greece. December 6-8.
35. Delivoria, D. C., and Skretas, G. 2013. Identification of potentially therapeutic compounds that enhance the stability of a carcinogenic p53 variant. 64th Congress of the Hellenic Society of Biochemistry and Molecular Biology. Athens, Greece. December 6-8.
34. Skretas, G. 2013. Engineering bacteria for the discovery of potentially therapeutic compounds against protein misfolding diseases, 2nd Symposium on applied synthetic biology in Europe, Malaga, Spain. November 25–27.
33. Matis, I., Delivoria, D., Papaevgeniou, N., Chondrogianni, N., and Skretas, G. 2013. Engineering bacteria for the discovery of potential therapeutic compounds against protein misfolding diseases. EMBO-EMBL Symposium "New approaches and concepts in microbiology", EMBL Heidelberg, Germany. October 14-16.
32. Delivoria, D. C., and Skretas, G. 2013. Identification of potentially therapeutic compounds that enhance the stability of a carcinogenic p53 variant. International Summer School on Protein Interactions, Assemblies and Human Disease. Spetses, Greece. September 16-26.
31. Matis, I., Delivoria, D. C., Kolisis, F., and Skretas, G. 2013. Biosynthesis and genetic screening of compounds with potential therapeutic properties for Alzheimer's disease, through the use of *E. coli* cells. 9th Panhellenic Scientific Chemical Engineering Congress. Athens, Greece. May 23-25.
30. Zarafeta, D., Skretas, G. and Kolisis, F. 2013. High-throughput screening of metagenomic libraries for the detection of thermostable hydrolases using E. coli expression systems. 9th Panhellenic Scientific Chemical Engineering Congress. Athens, Greece. May 23-25.

29. Delivoria, D. C., Kolisis, F., and Skretas, G. 2013. Use of simple bacterial hosts and of molecular evolution approaches for the discovery of compounds with potentially anti-cancer properties. 9th Panhellenic Scientific Chemical Engineering Congress. Athens, Greece. May 23-25.
28. Gialama, D., Kolisis, F., and Skretas, G. 2013. Modification and study of bacterial strains of *Escherichia coli* with the aim to produce membrane proteins using methods of Systems Biology. 9th Panhellenic Scientific Chemical Engineering Congress. Athens, Greece. May 23-25.
27. Skretas, G. 2013. Strain Engineering for Enhanced Accumulation of Recombinant Membrane Proteins in *Escherichia coli*, EMBO Conference "The Biology of molecular chaperones: From molecules, organelles and cells to misfolding diseases". Santa Margherita di Pula, Italy, May 17-22.
26. Gialama, D., Kolisis, F., and Skretas, G. 2012. Overcoming the toxicity of membrane proteins in *Escherichia coli*. Food, Health and well-being, Belgrade Food International Conference, Belgrade, Serbia. November 26-28.
25. Skretas, G., Makino, T., Varadarajan, N., Pogson, M., and Georgiou, G. 2012. Multi-copy genes that enhance the yield of mammalian G protein-coupled receptors in *Escherichia coli*. 15th European Congress on Biotechnology. Istanbul, Turkey. September 23-26.
24. Skretas, G., Makino, T., Varadarajan, N., Pogson, M., and Georgiou, G. 2012. Multi-copy genes that enhance the yield of mammalian G protein-coupled receptors in *Escherichia coli*. 26th Annual Symposium of the Protein Society. San Diego, California, USA. August 5-8.
23. Skretas, G. 2011. Engineered bacteria for the detection, discovery, and assessment of human hormones. 2nd Faculty of Chemistry – University of Belgrade ERA Workshop, Belgrade, Serbia. October 18-19.
22. Skretas, G., Meligova, A., Villalonga-Barber, C., Mitsiou, D.J., Alexis, M.N., Michascrettas, M., Steele, B.R., Screttas, C.G., and Wood, D.W. 2010. Engineered bacteria for the discovery and assessment of human endocrine modulators. 3rd Swedish-Greek Conference in Life Sciences. Athens, March 25-27.
21. Makino, T., Skretas, G., and Georgiou, G. 2010. Genetic Optimization of G-Protein Coupled Receptor Expression in *Escherichia coli*. ACS National Meeting, San Francisco, California, USA, March 21-25.
20. Skretas, G., and Wood, D.W. 2009. Construction of simple bacterial hormone sensing systems based on engineered allosteric enzymes. MicroBiokosmos. Athens, December 11-13.

19. Makino, T., Skretas, G., and Georgiou, G. 2009 Strain Engineering for Enhanced Expression of IgG in *Escherichia coli* Using High Throughput Screening. 20th Annual IBC Conference on Antibody Engineering. San Diego, USA, December 6 – December 10
18. Skretas, G., and Georgiou, G. 2008 Genetic analysis of G protein-coupled receptor expression in *Escherichia coli*. AIChE 2008 National Meeting, Philadelphia, Pennsylvania, USA, November 16-November 21
17. Skretas, G., Varadarajan, N., and Georgiou, G. 2008 Genetic engineering of *Escherichia coli* for high-level expression of integral membrane proteins. AIChE 2008 National Meeting, Philadelphia, Pennsylvania, USA, November 16-November 21
16. Skretas, G., Link, A.J., and Georgiou, G. 2008 Genetic analysis of heterologous membrane protein expression in *Escherichia coli*. Microbial Genetics and Genomics V, Cassis, France, May 16-19.
15. Skretas, G., and Wood, D.W. 2005 An engineered chimeric enzyme for use in drug sensing, discovery and development. AIChE 2005 National Meeting, Cincinnati, Ohio, USA, October 30-November 4.
14. Skretas, G., and Wood, D.W. 2004 Ligand-induced protein Splicing: a general way of achieving post-translational regulation of protein activity in vivo. AIChE 2005 National Meeting, Cincinnati, Ohio, USA, October 30 - November 4.
13. Skretas, G., and Wood, D.W. 2005 Construction of simple in vivo drug screening systems. 18th Mid-Atlantic Biochemical Engineering Consortium, Rutgers University, Rutgers, New Jersey, USA, April 8.
12. Skretas, G., and Wood, D.W. 2005 Engineering hormone-sensitive bacteria. 229th ACS National Meeting, San Diego, California, USA, March 13-17.
11. Skretas, G., and Wood, D.W. 2005 Post-translational regulation of protein activity with small-molecule-controlled peptide splicing. 229th ACS National Meeting, San Diego, California, USA, March 13-17.
10. Skretas, G., and Wood, D.W. 2004 Evolution of allosteric protein switches and biosensors. Evolution at Princeton Symposium, Princeton University, Princeton, New Jersey, USA, December 13.
9. Skretas, G., and Wood, D.W. 2004 Engineering hormone-sensitive bacteria for efficient drug screening. AIChE 2004 National Meeting, Austin, Texas, USA, November 7-12.
8. Skretas, G., and Wood, D.W. 2004 Controlling protein function with peptide splicing. AIChE 2004 National Meeting, Austin, Texas, USA, November 7-12.
7. Skretas, G., and Wood, D.W. 2004 Development of generic molecular protein switches. First International Meeting on Synthetic Biology, Massachusetts Institute of Technology, Cambridge, Massachusetts, USA, June 10-12.

6. Skretas, G., and Wood, D.W. 2004 Engineering hormone-sensitive bacteria: A step further towards efficient drug screening. 17th Mid-Atlantic Biochemical Engineering Consortium, University of Maryland Baltimore County, March 22. *Award for Best Presentation.
5. Skretas, G., and Wood, D.W. 2003 Generating small-molecule-controlled inteins for applications in biotechnology. AIChE 2003 National Meeting, Austin, Texas, USA, November 16-21.
4. Skretas, G., Duggan, H.C., and Wood, D.W. 2003 A novel screening/selection system for protein splicing. AIChE 2003 National Meeting, San Francisco, California, USA November 16-21.
3. Skretas, G., and Wood, D.W. 2003 Generating small-molecule-controlled inteins for applications in biotechnology. 16th Mid-Atlantic Biochemical Engineering Consortium, University of Maryland at College Park, College Park, Maryland, USA, March 14.
2. Skretas, G., and Wood, D.W. 2003 Generating small-molecule-controlled inteins for biotechnology applications. Vaccine Bioprocess Engineering Symposium, Merck Research Laboratories, West Point, Pennsylvania, USA, March 7.
1. Papadopoulos, M.G., Skretas, G., Raptis, S.G., Theologitis M.M. 1999 Nonlinear optical properties of lithium-containing derivatives. SPIE Photonics West, San Jose, California, USA, January 23-29.

Research funding

1. 2015. Ioannis Latsis Foundation – Scientific Project Award. Project title: “Protein tools for programming cell behavior in synthetic biology”. Coordinator: Dr. Georgios Skretas. Total budget: 12,000 €. Lab budget: 12,000 €.
2. 2013-2015. IKY Fellowships of Excellence for Postgraduate Studies in Greece-Siemens Program. Coordinator: Dr. Georgios Skretas. Post-graduate research fellow: Dr. Kalliopi Kostelidou. Total budget: 40,000 €. Lab budget: 40,000 €.
3. 2013-2015. General Secretariat of Research and Technology – KRIPIS Grant. Project acronym: “STHENOS”. Coordinator: Dr. Alexandros Pintzas. Total budget: 1,500,000 €. Lab budget: 48,000 €.
4. 2013. Ioannis Latsis Foundation – Scientific Research Studies Award. Coordinator: Dr. Niki Chondrogianni. Total budget: 12,000 €. Lab budget: 6,000 €.
5. 2012-2015. General Secretariat of Research and Technology – “ARISTEIA” Award. Project Acronym: “NEUROTHERAPY”. Coordinator: Dr. Georgios Skretas. Budget: 216.000 €. Lab Budget: 190,000 €.

6. 2012-2015. Ministry of Education, Lifelong Learning, and Religious Affairs - Program "Thalis". Project Acronym: "CYCLIPAD". Coordinator: Dr. Efstathios Gonos. Budget: 540.000 €. Lab Budget: 171,000 €.

7. 2011-2015. FP7 European Union Cooperation Program KBBE-2010.3.5-04 - Microbial diversity and metagenomic mining for biotechnological innovation. Project Acronym: "HotZyme". Coordinator: Prof. Xu Peng, University of Copenhagen, Denmark. Total budget: 5,518,544 €. Lab budget (through the National Technical University of Athens): € 160,000. Website: hotzyme.com

8. 2011-2015. European Union FP7 Marie Curie International Reintegration Grant. Project Acronym: "DEVOCAT". Coordinator: Dr. Soterios Kyrtopoulos. Marie Curie Fellow: Dr. Georgios Skretas. Total budget: € 100,000. Lab budget: € 100,000. Website: http://www.eie.gr/nhrf/institutes/ibrb/eu-projects/DEVOCAT_project.pdf

9. 2011-2015. General Secretariat of Research and Technology (Greece) Cooperation Program – Large Scale Cooperative Projects. Project Acronym: "DAMP". Coordinator: Prof. Nektarios Aligiannis. Total budget: 1,412,000 €. Lab budget: € 150,000.

10. 2006-2008. Neose Technologies Inc. Project title: "*In vitro* Glycosylation of Bacterial Proteins". Coordinator: Prof. George Georgiou, University of Texas at Austin, USA. Budget: \$ 206,630.

11. 2004 - 2009. United States of America National Institute of Health R01 (GM069872). Project title: "Genetic Analysis of the *Escherichia coli* Tat Pathway". Coordinator: Prof. George Georgiou, University of Texas at Austin, USA. Budget: \$ 642,797.

12. 2004-2009. United States National Science Foundation CAREER Award (BES-0348220). Project title: "Protein Switches for Biotechnology. Generate and apply allosteric intein switches to biosensing and protein purification". Coordinator: Prof. David W. Wood, Princeton University, USA. Budget: \$ 400,000.

13. 2004 - 2007. United States Army Research Office Small Research Grant (W911NF-04-1-0056). Project title: "A General Expression System for the Production of Self-Purifying Proteins" Coordinator: Prof. David W. Wood, Princeton University, USA. Budget: \$ 250,000.

Participation in International Scientific Networks

1. COST Action BM1307 | European network to integrate research on intracellular proteolysis pathways in health and disease (PROTEOSTASIS) | 25 April 2014 - 24 April 2018. Dr. Georgios Skretas is serving as the 1st substitute Management Committee member for Greece.

2. COST Action CM1303 | Systems Biocatalysis (SysBioCat) | 20 November 2013 - 19 November 2017. Dr. Georgios Skretas is serving as the 1st substitute Management Committee member for Greece.

Collaborations

- Prof. Xu Peng, Department of Biology, University of Copenhagen, Denmark
- Prof. Elizaveta Bonch-Osmolovskaya, Department of Microbial Communities, Winogradsky Institute of Microbiology, Russia
- Prof. Fragiskos Kolisis, Department of Chemical Engineering, National Technical University of Athens, Greece
- Prof. Spiros Efthimiopoulos, Department of Biology, National & Kapodistrian University of Athens, Greece
- Dr. Konstantinos Vekrellis, Institute of Biomedical Research, Academy of Athens, Greece
- Prof. Dimitris Hatzinikolaou, Department of Biology, National & Kapodistrian University of Athens, Greece
- Prof. Olga Igglesi-Markopoulou, Department of Chemical Engineering, National Technical University of Athens, Greece
- Dr. Maria Pelecanou, Institute of Biology, Research Centre "Demokritos", Greece
- Prof. Marigoula Margarity, Department of Biology, University of Patras, Greece
- Dr. Spiros Georgopoulos, Institute of Biomedical Research, Academy of Athens, Greece
- Prof. Nektarios Aligiannis, Department of Pharmacognosy, National & Kapodistrian University of Athens, Greece
- Dr. Michael Alexis, Institute of Biology, Medicinal Chemistry and Biotechnology, National Hellenic Research Foundation
- Dr. Aristoteles Chatziioannou, Institute of Biology, Medicinal Chemistry and Biotechnology, National Hellenic Research Foundation
- Dr. Niki Chondrogianni, Institute of Biology, Medicinal Chemistry and Biotechnology, National Hellenic Research Foundation

Other activities

- ❖ Member of scientific societies:
 1. European Federation of Biotechnology
- ❖ Reviewer for scientific journals:
 1. PLoS ONE
 2. BBA – Biomembranes
 3. Mechanisms of ageing and development
 4. Marine drugs
 5. Microbial Cell Factories

- ❖ Evaluator for research proposals:
 1. 2010. Proposal evaluator. Ministry of Education and Religion, Greece.
 2. 2014. The Ministry of Education, Youth and Sports – Czech Republic: Czech-Norwegian Research Programme
 3. 2014. European Commission: ERASynBio Joint Call for Transnational Research Projects: Building Synthetic Biology Capacity Through Innovative Transnational Projects

- ❖ Organization of workshops and seminars
 1. 2013 - 2014. Member of the Organizing Committee of the Annual Seminar Series of the Institute of Biology, Medicinal Chemistry and Biotechnology.
 2. 2012 - 2013. Member of the Organizing Committee of the Annual Seminar Series of the Institute of Biology, Medicinal Chemistry and Biotechnology.
 3. 2011 - 2012. Member of the Organizing Committee of the Annual Seminar Series of the Institute of Biology, Medicinal Chemistry and Biotechnology.
 4. October 2011. Member of the Organizing Committee of the 4th Swedish-Hellenic Life Sciences Conference & Course on Systems Biology; Athens, Greece.
 5. 2010 - 2011. Member of the Organizing Committee of the Annual Seminar Series of the Institute of Biological Research and Biotechnology.