

# Georgios Skretas

Research Assistant Professor

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## ***Professional Experience***

- 2017 - present**      **Research Associate Professor**  
National Hellenic Research Foundation  
Institute of Biology, Medicinal Chemistry & Biotechnology  
Athens, Greece
- 2013 - 2017**      **Research Assistant Professor**  
National Hellenic Research Foundation  
Institute of Biology, Medicinal Chemistry & Biotechnology  
Athens, Greece
- 2016 - present**      **Visiting Professor**  
University of Thessaly  
Department of Biochemistry and Biotechnology  
Larissa, Greece
- 2009 - 2012**      **Research Lecturer**  
National Hellenic Research Foundation  
Institute of Biological Research & Biotechnology  
Athens, Greece
- 2006 - 2009**      **Post-doctoral Research Associate**  
The University of Texas at Austin  
Institute for Cellular and Molecular Biology  
Austin - Texas, USA  
Advisor: Prof. George Georgiou

## ***Education***

- 2001 - 2006**      **PhD**  
Department of Chemical and Biological Engineering  
Princeton University  
Princeton, USA  
Thesis title: "Engineering Protein-Based Molecular Switches: *In vivo* Regulation of Protein Activity and the Construction of Simple Biosensors"

1999 – 2001      Advisor: Prof. David W. Wood  
**Master's degree**  
 Department of Chemical and Biological Engineering  
 Princeton University  
 Princeton, USA

1993 – 1998      **Bachelor's degree**  
 School of Chemical Engineering  
 National Technical University of Athens  
 Athens, Greece

### ***Awards and distinctions***

2013 – present      Elected Delegate of Greece to the Scientific Committee of the Section  
 of Applied Biocatalysis - European Federation of Biotechnology

2005 – present      Five (5) Awards for Best Conference Presentation

2012 – 2015      Excellence in Research Award “ARISTEIA” – General Secretariat of  
 Research and Technology – Greece

2011-2015      Marie Curie Fellowship - FP7 PEOPLE International Re-integration  
 Grant

2004      William R. Showalter Travel Award, Department of Chemical and  
 Biological Engineering, Princeton University, HPIA

### ***Teaching Experience***

2010 – present      Supervisor of seven (7) post-doctoral research associates, six (6) PhD  
 candidates, and seven (7) senior thesis students  
 National Hellenic Research Foundation, Greece

2015 - present      Lecturer – Topic: “Synthetic Biology” & “Protein Engineering” -  
 Master's course: “Bioentrepreneurship”  
 University of Thessaly, Greece

2015 - present      Lecturer – Topic: “Synthetic Biology” - Master's course: “Systems  
 Biology”  
 Agricultural University of Athens, Greece

2016      Lecturer – Topic: “Synthetic Biology” - Master's course: “Microbial  
 Biotechnology”  
 National & Kapodistrian University of Athens, Greece

2012      Guest Lecturer – Master's course: “Molecular Biotechnology”  
 University of Belgrade, Faculty of Chemistry, Serbia

2011      Guest Lecturer – Master's course: “Workshop on Systems Biology”  
 Örebro University, School of Science and Technology, Örebro Life  
 Science Centre, Sweden

- January 2004 – May 2004** Teaching Assistant – Undergraduate course: “Chemical Engineering Laboratory” (with Profs. J. Benziger & J. D. Carbeck)  
Princeton University, Department of Chemical and Biological Engineering, Princeton – New Jersey, HΠΑ
- September 2003 – January 2004** Teaching Assistant – Undergraduate course: “An Introduction to the Principles of Chemical Engineering” (with Prof. David W. Wood)  
Princeton University, Department of Chemical and Biological Engineering, Princeton – New Jersey, HΠΑ
- January 2001 – May 2001** Teaching Assistant – Undergraduate course: “Chemical Reaction Engineering” (with Prof. J. D. Carbeck)  
Princeton University, Department of Chemical and Biological Engineering, Princeton – USA

## ***Supervision of Junior Researchers***

### **Post-doctoral Research Associates**

1. Dr. Stamatia Bellou (October 2015 – May 2017)
2. Dr. Zacharoula Linardaki (July 2015 – January 2016)
3. Dr. Kalliopi Kostelidou (October 2013 – June 2016)
4. Dr. Michael Fasseas (November 2014 – September 2015)
5. Dr. Lakshmi Tripathi (October 2014 – July 2015)
6. Dr. Evgenia Megalou (March 2013 – March 2014)
7. Dr. Panayiota Stathopoulou (February 2013 - February 2014)

### **PhD Theses**

#### ***Completed***

1. Mrs. Dimitra Gialama  
2011-2016. School of Chemical Engineering, National Technical University of Athens  
Thesis title: “Application of systems biotechnology approaches for the development of specialized *Escherichia coli* for recombinant membrane protein production”
2. Mrs. Dimitra Zarafeta  
2012-2017. School of Chemical Engineering, National Technical University of Athens  
Thesis title: “Discovery and characterization of thermostable hydrolytic enzymes from metagenomic libraries derived from extreme environments”

#### ***In progress***

3. Mrs. Dafni Chrysanthi Delivoria  
2012–present. School of Chemical Engineering, National Technical University of Athens  
Thesis title: “Use of simple bacterial cells and molecular evolution approaches for the discovery of compounds with anticarcinogenic properties”
4. Mr. Ilias Matis  
2012–present. School of Chemical Engineering, National Technical University of Athens

Thesis title: “Biosynthesis and Genetic Selection of Cyclic Peptides with Potential Therapeutic Effects Against Alzheimer's Disease: Inhibitors of A $\beta$  aggregation»

5. Mrs. Stefania Panoutsou

2013–present. Department of Biology, National & Kapodistrian University of Athens

Thesis title: “Molecular evolution of compounds with potentially therapeutic effects against familial forms of amyotrophic lateral sclerosis”

6. Mrs. Myrsini Michou

2016–present. Department of Biochemistry and Biotechnology, University of Thessaly

Thesis title: “Development of optimized bacterial strains for recombinant production of prokaryotic and eukaryotic integral membrane proteins”

### **Research Assistants**

1. Mr. Athanasios Labropoulos (2015); 2. Mrs. Alice Papakonstantinou (2014)

### **Senior Theses**

#### ***Completed***

1. Mrs. Amalia Zafeiri (2013)

Department of Biology, National & Kapodistrian University of Athens

2. Mr. Dimitrios Kissas (2015)

School of Chemical Engineering, National Technical University of Athens

3. Mrs. Frantzeska Sietou (2017)

School of Chemical Engineering, National Technical University of Athens

4. Mr. Angelos Stergios (2017)

Department of Biological Applications and Technologies, University of Ioannina

#### ***In progress***

5. Mr. Michael Kyknas

Department of Biochemistry and Biotechnology, University of Thessaly

6. Mrs. Katerina Prokopou

School of Chemical Engineering, National Technical University of Athens

7. Mrs. Melina Leni

Department of Biological Applications and Technologies, University of Ioannina

### **Internships**

1. Mrs. Katerina Kasouni (2016); 2. Mrs. Alice Iliadou (2015); 3. Mrs. Athena Stavridou (2015);

4. Mrs. Aydan Karakaya (2015); 5. Mrs. Katerina Prokopou (2015); 6. Mrs. Maria Zacharopoulou (2015); 7. Mrs. Danae Moschidi (2015); 8. Mrs. Ioanna Karagiannaki (2015); 9. Mr. Constantinos Asimakopoulos (2014); 10. Mrs. Cleopatra Avrambou (2014); 11. Mrs. Evmorfia Kilimtzi (2013); 12. Mr. Ioannis Michailides (2013)

## ***Research Interests***

- Synthetic Biology
- Chemical Biology
- Protein misfolding and aggregation
- Discovery and preclinical development of chemical rescuers of disease-associated protein misfolding and aggregation with potentially therapeutic properties against Alzheimer's disease, Parkinson's disease, cancer, amyotrophic lateral sclerosis and other disorders
- Development of specialized microbial strains for the production of hard-to-express recombinant proteins
- Microbial production of integral membrane proteins for biochemical and structural studies
- Discovery of new enzymes of industrial interest by genomic and metagenomic approaches
- Directed protein evolution
- Design and development of protein-based biosensors
- Chemistry-directed emergence of complex phenotypes in microbial cells

## ***Publications in peer-reviewed journals***

*\*Denotes corresponding author*

1. Matis, I., Delivoria, D.C., Mavroidi, B., Papaevgeniou, N., Panoutsou, S., Bellou, S., Papavasileiou, K.D., Linardaki, Z., Stavropoulou, A.V., Vekrellis, K., Boukos, N., Kolisis, F.N., Gonos, E.S., Margarity, M., Papadopoulos, M.G., Efthimiopoulos, S., Pelecanou, M., Chondrogianni, N., Skretas, G\*. 2017. An integrated and generalizable bacterial discovery platform for chemical rescuers of disease-associated protein misfolding. ***Nature Biomedical Engineering***. 1, 838–852. Impact factor: not determined yet.

⇒ News & Views commentary in *Nature Biomedical Engineering*:

<https://www.nature.com/articles/s41551-017-0149-y>

⇒ Interview in the newspaper "Avgi" regarding this work:

<http://www.avgi.gr/article/10965/8644050/tropopoiemena-bakteria-boethoun-sten-anakalypse-neon-pharmakon-kata-neuroekphylistikon-astheneion>

⇒ This work has been featured in a numerous press releases:

<http://health.in.gr/news/scienceprogress/article/?aid=1500171023>

<http://www.skaipatras.gr/2017/11/02/ellines-epistimonas-aneptyxan-tropopiimena-vaktiria-gia-tin-anakalypsi-neon-farmakon-gia-tis-nevroekfylistikes-pathisis/>

<http://www.avgi.gr/article/10965/8488436/ellenes-epistemonas-aneptyxan-tropopoiemena-bakteria-pou-boethoun-stin-anakalypse-neon-pharmakon>

[http://www.eie.gr/nhrf/news/2017/24\\_10\\_2017\\_PressRelease\\_IBMCB\\_NatureBiomedicalEngineering\\_gr.pdf](http://www.eie.gr/nhrf/news/2017/24_10_2017_PressRelease_IBMCB_NatureBiomedicalEngineering_gr.pdf)

<http://pub.lucidpress.com/275828af-a166-49a6-af23-63d5a226315a/?src=em>

<http://www.cretalive.gr/health/ellhnes-ereynhtes-allazoun-ta-dedomena-stis-nevroekfylistikes-pathhseis>

<https://news.makedonias.gr/2017/10/3204885/>

<http://www.haniotika-nea.gr/ellines-erevnites-allazoun-ta-dedomena-stis-nevroekfilistikes-pathisis/>

<http://www.iatropedia.gr/ygeia/elliniko-alma-stin-therapeia-ton-nevroekfylistikon-pathiseon-ti-petychan-epistimonas-tou-e-e/91406/>

<http://www.nooz.gr/world/tropopoiemena-vaktiria-gia-neuroekfulistikes-pa8iseis>

<http://www.patrisnews.com/ellines-epistimonas-aneptyxan-tropopoiemena-vaktiria-gia-tin-anakalypsi-neon-farmakon-gia-tis-nevroekfylistikes-pathisis/>

<http://www.multi-news.gr/in-ellines-erevnites-allazoun-dedomena-stis-nevroekfilistikes-pathisis/>

<http://www.nooz.gr/science/tropopoiemena-vaktiria-gia-neuroekfulistikes-pa8iseis>

<http://healthmag.gr/post/8944/allazoun-ta-dedomena-stis-nevroekfylistikes-pathhseis-ti-brhkan-ellhnes-ereynhtes>

<http://blog.nowdoctor.gr/28374-epistimonas-aneptuxan-tropopoiemena-baktiria-pou-boithoun-stin-anakalypsi-neon-farmakon-gia-tis-neuroekfulistikes-pathiseis/>

<https://nucleus.gr/?p=7070>

<http://www.amna.gr/health/article/200149/Epistimonas-tou-Ethnikou-Idrymatos-Ereunon-aneptuxan-tropopoiemena-baktiria-pou-boithoun-stin-anakalypsi-neon-farmakon-gia-tis-neuroekfulistikes-pathiseis>

<https://analitis.gr/epistimonas-toy-ethnikoy-idrymatos-ereynwn-aneptyksan-tropopoiemena-baktiria-pou-boithoun-stin-anakalypsi-neon-farmakon-gia-tis-nevroekfylistikes-pathhseis/>

<https://emvolos.gr/nea-farmaka-gia-tis-nevroekfylistikes-pathisis-apo-ellines-epistimonas-tou-ethnikou-idrymatos-erevnon/>

2. Kostelidou, K., Matis, M., and Skretas, G\*. 2017. Microbial genetic screens and selections for monitoring protein misfolding: tools for the identification of disease-relevant genes and the discovery of potential therapeutic compounds against neurodegenerative diseases. ***Current Pharmaceutical Design***. In press. Impact factor: 2.611.

3. Gialama, D., Delivoria, D.C., Michou, M., Giannakopoulou, A., Skretas, G\*. 2017. Functional requirements for DjlA- and RraA-mediated enhancement of recombinant membrane protein production in the engineered *E. coli* strains SuptoxD and SuptoxR. ***Journal of Molecular Biology***. 429(12):1800-1816. Impact factor: 4.632.
4. Gialama, D., Kostelidou, K., Michou, M., Delivoria, D.C., Kolisis, F.N., Skretas, G\*. 2017. Development of *Escherichia coli* strains that withstand membrane protein-induced toxicity and achieve high-level recombinant membrane protein production. ***ACS Synthetic Biology***. 6(2): 284-300. Impact factor: 5.382.
5. Zarafeta, D., Moschidi, D., Ladoukakis, E., Gavrilov, S., Chrysina, E.D., Chatziioannou, A., Kublanov, I., Skretas, G\*, Kolisis, F. N.\*. 2016. Metagenomic mining for thermostable esterolytic enzymes uncovers a new family of bacterial esterases. ***Scientific Reports***. 6: 38886. Impact factor: 4.259.
6. Zarafeta, D., Szabo, Z., Moschidi, D., Phan, H., Chrysina, E.D., Peng, X., Ingham, C.J., Kolisis, F. N.\*, Skretas, G\*. 2016. EstDZ3: a new esterolytic enzyme exhibiting remarkable thermostability. ***Frontiers in Microbiology***. 7: 1779. Impact factor: 4.076.
7. Zarafeta, D., Kissas, D., Sayer, C., Gudbergdottir, S. R., Ladoukakis, E., Isupov, M. N., Chatziioannou, A., Peng, X., Littlechild, J. A.\*, Skretas, G\*, and Kolisis, F. N.\* 2016. Discovery and characterization of a thermostable and highly halotolerant GH5 cellulase from an Icelandic hot spring isolate. ***PLoS ONE***, 11(1): e0146454. Impact factor: 2.806.
8. Skretas, G\*, and Kolisis, F.N.\* 2013. Combinatorial approaches for inverse metabolic engineering applications. ***Computational and Structural Biotechnology Journal***. 3(4): e201210021. Impact factor: not determined yet.
9. Skretas, G.<sup>‡</sup>, Makino, T.<sup>‡</sup>, 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. Impact factor: 8.142.
10. Makino, T.<sup>‡</sup>, Skretas, G.<sup>‡</sup>, and Georgiou, G. 2011. Strain engineering for improved expression of recombinant proteins in bacteria. ***Microbial Cell Factories***. 10(1): 32. Impact factor: 3.681.

<sup>‡</sup>Equal contribution

<sup>‡</sup>Equal contribution

⇒ Characterized as "Highly accessed"

11. Makino, T.<sup>‡</sup>, Skretas, G.<sup>‡</sup>, Kang, T.H., and Georgiou, G. 2011. Comprehensive engineering of Escherichia coli for enhanced expression of IgG antibodies. *Metabolic Engineering*. 13(2): 241-51. Impact factor: 8.142.

<sup>‡</sup>Equal contribution

12. 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. Impact factor: 3.807.

13. 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. Impact factor: 3.681.

14. 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. Impact factor: 4.481.

⇒ “Editors’ choice” article

15. 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 Impact factor: 9.661.

16. 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. Impact factor: 2.523.

17. 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. Impact factor: 1.986.

18. Skretas, G.\*, Meligova, A., Villalonga-Barber, C., Mitsiou, D.J., Alexis, M.N., Micha-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. Impact factor: 13.858.

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

19. 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. Impact factor: 3.807.

20. Skretas, G., and Wood, D.W. 2005. A bacterial biosensor of endocrine modulators. *Journal of Molecular Biology*. 349: 464-474. Impact factor: 4.632.

⇒ Selected as an Article of Outstanding Interest by “Faculty of 1000”

21. Skretas, G., and Wood, D.W. 2005. Regulation of protein activity with small-molecule-controlled inteins. *Protein Science*. 14: 523-532. Impact factor: 2.523.

22. Theologitis M., Skretas 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. Impact factor: 2.920.

### ***Manuscripts in preparation***

1. Wohlgemuth, R., Littlechild, J., Monti, D., Schnorr, K., Siebers, B., Menzel, P., van Rossum, T., Kublanov, I., Rike, A.G., Skretas, G., Szabo, Z., Peng, X., Young, M. 2018. Discovery of Novel Hydrolases from Hot Environments. *Biotechnology Advances*. Invited review article. Impact factor: 10.597.

2. Delivoria, D.C., Chia S., Habchi, J., Perni, M., Papaevgeniou, N., Matis, I., Chondrogianni, N., Dobson, C.M., Vendruscolo, M., Skretas, G.\* 2018. Bacterial biosynthesis of a 200-million-member macrocycle library and genetic screening for the discovery of rescuers of amyloid  $\beta$  misfolding and aggregation.

3. Michou, M., Stergios, A., Skretas, G.\* 2018. A second-generation *Escherichia coli* SuptoxD strain achieving further enhanced recombinant membrane protein production.
4. Michou, M., Kapsalis, C., Pliotas, C., Skretas, G.\* 2018. Optimization of recombinant membrane protein overexpression in the engineered *Escherichia coli* strains SuptoxD and SuptoxR.
5. Michou, M., Giannakopoulou, A., Skretas, G.\* 2018. Comparative functional analysis of RraA homologues in the engineered *Escherichia coli* membrane-protein-overexpression strain SuptoxR.
6. Ladoukakis, E., Koutsandreas, T., Pilalis, E., Zarafeta, D., Menzel, P., Krogh, A., Skretas, G., Kolisis, F.N., Chatziioannou, A. 2018. ANASTASIA: a distributed pipeline for automated integration, analysis and functional characterization of next-generation sequencing metagenomic datasets.

### ***Publications in books***

1. Gialama, D., Kolisis, F.N., and Skretas, G.\*. 2018. New expression systems for GPCRs. In ***Novel Bioprocessing Technology for Production of Biopharmaceuticals and Bioproducts*** (Editors: W. Zhou, and C. Komives). Wiley & Sons. In press.
2. Wood, D.W., and Skretas, G. 2005. Intein reporter and selection systems. In ***Homing endonucleases and inteins*** (Editors: M. Belfort, V. Derbyshire, B.L. Stoddard, and D.W. Wood). Springer.

### ***Publications in conference proceedings***

1. Papadopoulos, M.G., Skretas, 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

## ***Bibliometric indices***

- Publications in peer-reviewed journals: 22
- Citations: 561 (Google scholar)
- Hirsch factor (H-factor): 13 (Google scholar)

### Note:

- 21 publications under the name “Georgios Skretas”
- 1 publication under the name “Georgios C. Screttas”

## ***Patents***

### ***Awarded***

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

### ***Applications***

1. Skretas, G. and Gialama, D. Systems for recombinant protein production. **PCT/EP2016/001019**
2. Skretas, G. Macrocyclic modulators of  $\beta$ -amyloid misfolding and aggregation. **PCT/EP2017/025141**
3. Skretas, G. Macrocyclic rescuers for disease-associated protein misfolding. **PCT/EP2017/025298**

## ***Technology transfer***

***Founder and CEO of ResQ Biotech***, a spin-off company of the National Hellenic Research Foundation, which will be dealing with the pre-clinical development and commercial exploitation of the chemical rescuers of disease-associated protein misfolding.

## Research funding

1. 2018-2021. Hellenic Foundation for Research and Innovation. Research Projects for Postdoctoral Researchers. Project title: “Targeting secretion and misfolding of  $\alpha$ -synuclein to reduce transmission of pathology in Parkinson’s disease: An interdisciplinary approach coupling neurobiology with biotechnology”. Coordinator: Dr. Evangelia Emmanouilidou. Total budget: 180,000 €. Lab budget: 50,000 €. Role: Partner.
 
2. 2017-2018. National Strategic Reference Framework 2014-2020. General Secretariat of Research and Technology – Research program “Research support with an emphasis on young researchers”. Project title: “Novel biocatalytic devices for effective exploitation of plant biomass”. Coordinator: Prof. Haralambos Stamatis. Total budget: 56,350 €. Lab budget: 15,000 €. Role: Partner.
 
3. 2017-2019. National Strategic Reference Framework 2014-2020. General Secretariat of Research and Technology – Research program “Support of infrastructures for research and Innovation”. Project title: “Synthetic Biology: from omics technologies to genomic engineering (OMIC-ENGINE)”. Coordinator: Prof. Kostas Mathiopoulos. Total budget: 4,000,000 €. Lab budget: 70,000 €. Role: Principal Investigator for NHRF research activities.
 
4. 2017-2019. National Strategic Reference Framework 2014-2020. General Secretariat of Research and Technology – Research program “KRIPIS”. Project title: “Targeted therapeutic approaches against degenerative conditions\_B”. Coordinator: Dr. Alexandros Pintzas. Total budget: 900,000 €. Lab budget: 24,000 €. Role: Partner.
 
5. 2017-2019. National Strategic Reference Framework 2014-2020. Fellowships for Post-doctoral Research. Post-graduate research fellow: Dr. Artemis Giannakopoulou. Total budget: 26,000 €. Lab budget: 26,000 €. Role: Coordinator- Principal Investigator. *Declined by the Fellow.*

6. 2016-2019. National Strategic Reference Framework 2014-2020. Fellowships for Doctoral Research. Doctoral research fellow: Myrsini Michou. Total budget: 29,400 €. Lab budget: 29,400 €. Role: Coordinator- Principal Investigator.
 
7. 2016-2017. State Scholarships Foundation (IKY) Fellowships of Excellence in Postgraduate Studies - Siemens Program. Post-graduate research fellow: Dr. Zacharoula Linardaki. Total budget: 24,000 €. Lab budget: 24,000 €. Role: Coordinator - Principal Investigator.
 
8. 2016-2017. State Scholarships Foundation (IKY) Fellowships of Excellence in Postgraduate Studies - Siemens Program. Post-graduate research fellow: Dr. Artemis Giannakopoulou. Total budget: 17,000 €. Lab budget: 17,000 €. Role: Coordinator - Principal Investigator. *Declined by the Fellow.*

9. 2015-2017. Research Program “Excellence” State Scholarships Foundation (IKY) - Siemens. Project title: “Thermostable enzymic nanodevices as catalysts for the production of biofuels from renewable carbon sources”. Coordinator: Prof.
 

Dimitris Hatzinikolaou. Total budget: 50.000 €. Lab budget: 24.800 €. Role: Partner.

10. 2015-2017. State Scholarships Foundation (IKY) Fellowships of Excellence in Postgraduate Studies - Siemens Program. Post-graduate research fellow: Dr. Stamatia Bellou. Total budget: 37,000 €. Lab budget: 37,000 €. Role: Coordinator - Principal Investigator.



11. 2015. John S. Latsis Public Benefit Foundation – Scientific Studies. Project title: “Protein tools for programming cell behavior in synthetic biology”. Total budget: 12,000 €. Lab budget: 12,000 €. Role: Coordinator- Principal Investigator.



12. 2013-2015. State Scholarships Foundation (IKY) Fellowships of Excellence in Postgraduate Studies - Siemens Program. Post-graduate research fellow: Dr. Kalliopi Kostelidou. Total budget: 40,000 €. Lab budget: 40,000 €. Role: Coordinator- Principal Investigator.



13. 2013-2015. National Strategic Reference Framework 2007-2013. General Secretariat of Research and Technology – Research program “KRIPIS”. Project title: “Targeted therapeutic approaches against degenerative conditions”. Coordinator: Dr. Alexandros Pintzas. Total budget: 1,500,000 €. Lab budget: 48,000 €. Role: Partner.



14. 2013. John S. Latsis Public Benefit Foundation – Scientific Studies. Project title: “Using bacteria and worms for the battle against Alzheimer’s disease”. Coordinator: Dr. Niki Chondrogianni. Total budget: 12,000 €. Lab budget: 6,000 €. Role: co-Coordinator.



15. 2012-2015. National Strategic Reference Framework 2007-2013. General Secretariat of Research and Technology – Research program “ARISTEIA”. Project title: “Directed Evolution of Small-Molecule Therapeutics Against Neurodegenerative Diseases”. Total budget: 216.000 €. Lab budget: 190.000 €. Role: Coordinator- Principal Investigator.



16. 2012-2015. National Strategic Reference Framework 2007-2013. Greek Ministry of Education, Research and Religious Affairs – Research program “THALIS”. Project title: “Biosynthesis and Genetic Selection of Cyclic Peptides with Potential Therapeutic Effects Against Alzheimer's Disease: Inhibitors of Aβ aggregation”. Coordinator: Dr. Stathis Gonos. Total budget: 540.000 €. Lab budget: 171.000 €. Role: Principal Investigator.



17. 2011-2015. FP7 European Union Cooperation Program KBBE-2010.3.5-04 - Microbial diversity and metagenomic mining for biotechnological innovation. Project title: “Systematic screening for novel hydrolases from hot environments”. Coordinator: Prof. Xu Peng. Total budget: 5,500,000 €. Lab budget: 150,000 €. Role: Partner.



18. 2011-2015. FP7 European Union Marie-Curie International Reintegration Grant. Project title: “Directed evolution of small-molecule cancer therapeutics”. Coordinator: Dr. Sotiris Kyrtopoulos. Total budget: € 100,000. Lab budget: € 100,000. Role: Marie Curie Fellow.



19. 2011-2015. National Strategic Reference Framework 2007-2013. General Secretariat of Research and Technology – Research program “SYNERGASIA”. Project title: “Development of novel Angiogenesis-Modulating Pharmaceuticals by screening of natural compounds and synthetic analogues”. Coordinator: Prof. Nektarios Aligiannis. Total budget: 1,412,000 €. Lab budget: € 150,000. Role: Partner.



## ***Participation in Scientific Networks***

1. Management Committee Member for Greece. COST Action BM1405 | Non-globular proteins - from sequence to structure, function and application in molecular physiopathology (NGP-NET) | 26 March 2015 - 25 March 2019.



2. Substitute Management Committee Member for Greece. COST Action BM1307 | European network to integrate research on intracellular proteolysis pathways in health and disease (PROTEOSTASIS) | 25 April 2014 - 24 April 2018.



3. Substitute Management Committee Member for Greece. COST Action CM1303 | Systems Biocatalysis (SysBioCat) | 20 November 2013 - 19 November 2017.



4. Representative of the General Secretariat of Research and Technology of Greece to meetings and workshops of the European research network ERA-Net “Synthetic Biology” (ERA-Synbio).



## ***Collaborations***

### **International academic**

1. Prof. Michele Vendruscolo, Centre for Protein Misfolding Diseases, Department of Chemistry, University of Cambridge, Cambridge, UK
2. Dr. Christos Pliotas, School of Biology, University of St Andrews, St Andrews, UK
3. Prof. Terry K. Smith, School of Biology, University of St Andrews, St Andrews, UK
4. Prof. Xu Peng, Department of Biology, University of Copenhagen, Copenhagen, Denmark
5. Dr. Ilya Kublanov, Department of Microbial Communities, Winogradsky Institute of Microbiology, St Petersburg, Russia

6. Prof. Jennifer A. Littlechild, College of Life and Environmental Sciences, University of Exeter, Exeter, UK.

### **Domestic academic**

1. Prof. Fragiskos Kolisis, School of Chemical Engineering, National Technical University of Athens, Athens, Greece

2. Dr. Maria Pelecanou, Institute of Biosciences and Applications, National Centre for Scientific Research "Demokritos", Athens, Greece

3. Dr. Konstantinos Vekrellis, Biomedical Research Foundation of the Academy of Athens, Athens, Greece

4. Prof. Spyros Efthimiopoulos, Department of Biology, National & Kapodistrian University of Athens, Athens, Greece

5. Prof. Dimitris Hatzinikolaou, Department of Biology, National & Kapodistrian University of Athens, Athens, Greece

6. Prof. Ioulia Smonou, Department of Chemistry, University of Crete.

7. Dr. Niki Chondrogianni, Institute of Biology, Medicinal Chemistry and Biotechnology, National Hellenic research Foundation, Athens, Greece

8. Dr. Aristotelis Chatziioannou, Institute of Biology, Medicinal Chemistry and Biotechnology, National Hellenic research Foundation, Athens, Greece

9. Dr. Michael N. Alexis, Institute of Biology, Medicinal Chemistry and Biotechnology, National Hellenic research Foundation, Athens, Greece

10. Dr. Evangelia Chrysina, Institute of Biology, Medicinal Chemistry and Biotechnology, National Hellenic research Foundation, Athens, Greece

### **Industrial**

1. ResQ Biotech – Spin-off company from the Laboratory of Enzyme & Synthetic Biotechnology, National Hellenic Research Foundation (to be founded in Dublin, Ireland)

2. Novozymes (Denmark)

3. Sigma-Aldrich (currently Merck) (USA)

4. Galenica (Greece)



### ***Invited presentations***

1. June 2018. “Engineered bugs for the discovery of new drugs against protein misfolding and aggregation”, International Conference on Biotechnology 2018 - Novel Trends and Innovations in Biotechnology. Rome, Italy. [PLENARY TALK]
2. June 2018. “Synthetic biology: Engineered cell factories for industrial production of new products”. Summer School of MIKROBIOKOSMOS 2018 - The role of microbiome in ecosystem functioning, food security and environmental protection, Mt. Pelion, Greece.
3. March 2018. “Engineering bugs for the discovery of new drugs against diseases caused by protein misfolding and aggregation”, Department of Biological Sciences, University of Cyprus, Nicosia, Cyprus.
4. January 2018. “Engineering bacteria for the discovery of potential therapeutics against neurodegenerative diseases”. Department of Biochemistry and Biotechnology, University of Thessaly, Larisa, Greece.
5. November 2017. “Engineered bugs for the discovery of new drugs against protein misfolding and aggregation”, Institute of Biotechnology and Biomedicine - Universitat Autònoma de Barcelona, Barcelona, Spain.
6. November 2017. “Engineering bacteria for the discovery of potential therapeutics against neurodegenerative diseases”, The Life Science Centre, School of Science and Technology, Örebro University, Örebro, Sweden.
7. May 2017. “Molecular evolution of macrocyclic rescuers of disease-associated protein misfolding”, Centre for Protein Misfolding Diseases, Department of Chemistry, Cambridge University, Cambridge, UK.
8. May 2017. “Molecular evolution of cyclic oligopeptide rescuers of disease-associated protein misfolding”, Astex Therapeutics Ltd., Cambridge, UK.
9. May 2017. “Molecular evolution of macrocyclic rescuers against disease-associated protein misfolding”, School of Chemistry, University of St. Andrews, St. Andrews, UK.
10. February 2016. “Engineering *E. coli* for high-level production of eukaryotic integral membrane proteins”, BioStruct-X Workshop “Dilemmas in structural biology: selection & integration of methods”, Athens, Greece.
11. December 2013. “Engineering bacteria for the discovery of potentially therapeutic compounds against protein misfolding diseases”, ERASynBio Interdisciplinary Workshop on Synthetic Biology, Athens, Greece.
12. January 2013. “Strain engineering for enhanced accumulation of recombinant membrane proteins in *Escherichia coli*”. PepTalk – The Protein Science Week. Palm Springs, California, USA.
13. December 2007. “Engineering *Escherichia coli* for high-level expression of (eukaryotic) integral membrane proteins”. Institute of Molecular Biology and Biotechnology – Institute of Research and Technology, Heraklion-Crete, Greece.



14. April 2006. "Engineering protein-based molecular switches: In vivo regulation of protein activity and the construction of simple biosensors". Laboratory of Biotechnology, School of Chemical Engineering, National Technical University of Athens, Athens, Greece.

15. 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***

76. Matis I., Delivoria D.C., Mavroidi B., Papaevgeniou N., Panoutsou S., Bellou S., Boukos N., Pelecanou M., Chondrogianni N., Skretas G., 2017. Molecular evolution of macrocyclic rescuers of disease-associated protein misfolding. 68<sup>th</sup> Congress of the Hellenic Society of Biochemistry and Molecular Biology. Athens, Greece. November 10-12.

75. Michou M., Giannakopoulou A., Gialama D., Kostelidou K., Pletsa V., and Skretas, G. 2017. SuptoxD, an *Escherichia coli* strain that enables recombinant production of membrane proteins at high yields. 68<sup>th</sup> Congress of the Hellenic Society of Biochemistry and Molecular Biology. Athens, Greece. November 10-12.

74. Matis I., Delivoria D. C., Mavroidi B., Papaevgeniou N., Panoutsou, S., Bellou, S., Linardaki Z., Stavropoulou A., Efthimiopoulos S., Pelecanou M., Chondrogianni N., and Skretas G. 2017. Molecular evolution of macrocyclic rescuers of disease-associated protein misfolding. 3<sup>rd</sup> NGP-NET symposium - Non-globular proteins in molecular physiopathology. Kosice, Slovakia. August 28-September 1. **[Award for Best Poster presentation].**

73. Delivoria D. C., Linardaki Z., Matis I., Bellou, S., Pletsa V., and Skretas G. 2017. Identification of potentially therapeutic short cyclic peptides against protein misfolding diseases. OCC World Congress and Annual SFRR-E Conference 2017 Metabolic Stress and Redox Regulation. Berlin, Germany. June 21-23.

72. Matis I., Delivoria D. C., Panoutsou, S., Bellou, S., Mavroidi B. , Papaevgeniou N., Stavropoulou A., Linardaki Z., Efthimiopoulos S., Chondrogianni N., Pelecanou M. and Skretas G. 2016. Molecular evolution of short cyclic peptides that rescue the misfolding, aggregation, and the associated pathogenic effects of proteins linked to protein misfolding diseases. 3<sup>rd</sup> PROTEOSTASIS Action Meeting - Proteostasis and its Biological Implications. Lisbon, Portugal. November 2-5.

71. Delivoria, D., Linardaki, Z., Matis, I., Bellou, S., Pletsa, V. and Skretas, G. 2016. Molecular evolution of compounds that rescue the misfolding and the associated pathogenic effects of proteins associated with protein misfolding diseases. FEBS Advanced Lecture Course on "Redox Regulation of Metabolic Processes". Spetses, Greece. September 19-25. **[Award for Best Poster presentation].**

70. Matis I., Delivoria D. C., Panoutsou, S., Bellou, S., Mavroidi B. , Papaevgeniou N., Stavropoulou A., Linardaki Z., Efthimiopoulos S., Chondrogianni N., Pelecanou M. and Skretas G. 2016. Molecular evolution of short cyclic peptides that rescue the misfolding, aggregation, and the associated pathogenic effects of proteins linked to protein misfolding diseases. 2<sup>nd</sup> NGP-NET

Symposium - Non-globular proteins in molecular physiopathology. Belgrade, Serbia. September 14-18.

69. Skretas, G. 2016. Engineering bacteria for the discovery of potential therapeutic compounds against protein misfolding diseases. 11<sup>th</sup> World Congress on Biotechnology and Biotech Industries Meet. Berlin, Germany. July 28-29.

68. Skretas, G. 2016. Discovery of therapeutic compounds against protein misfolding diseases. 3<sup>rd</sup> Greek Innovation Forum. Athens, Greece. January 8-10.

67. Moschidi, D., Zarafeta, D., Ladoukakis, E., Chatziioannou, A., Gavrilov, S., Kublanov, I., Szabó, Z., Peng, X., Skretas, G. and Kolisis, F. 2013. High-throughput screening of metagenomic libraries for the detection of thermostable hydrolases using E. coli expression systems. 64<sup>th</sup> Congress of the Hellenic Society of Biochemistry and Molecular Biology. Athens, Greece. December 6-8.

66. Matis I., Delivoria D. C., Mavroidi B. , Papaevgeniou N., Stavropoulou A., Linardaki Z., Margarity M., Efthimiopoulos S., Chondrogianni N., Pelecanou M. & Skretas G. 2015. Bacterial biosynthesis & high-throughput screening of cyclic peptides with potential therapeutic properties for Alzheimer's disease. 8<sup>th</sup> Swedish-Greek Conference in Life Sciences. Athens, October 12-13.

65. Matis I., Delivoria D. C., Mavroidi B. , Papaevgeniou N., Stavropoulou A., Linardaki Z., Margarity M., Efthimiopoulos S., Chondrogianni N., Pelecanou M. & Skretas G. 2015. Engineering bacteria for the discovery of potentially therapeutic compounds against protein misfolding diseases. Biotrans 2015. Vienna, Austria, 26-30 July.

64. Matis I., Delivoria D. C., Mavroidi B. , Papaevgeniou N., Stavropoulou A., Linardaki Z., Panoutsou, P., Margarity M., Efthimiopoulos S., Chondrogianni N., Pelecanou M. & Skretas G. 2015. Directed evolution of short cyclic peptides that rescue the misfolding and the associated pathogenic effects of proteins linked to protein misfolding diseases. NMR Applications in Life Sciences Exploring Peptides & Proteins. Patras, Greece. 18-20 June.

63. Matis I., Delivoria D. C., Mavroidi B. , Papaevgeniou N., Stavropoulou A., Linardaki Z., Margarity M., Efthimiopoulos S., Chondrogianni N., Pelecanou M. & Skretas G. 2015. Molecular evolution of cyclic peptides that inhibit the aggregation and neurotoxicity of the amyloid beta peptide in vitro and in vivo. NMR Applications in Life Sciences Exploring Peptides & Proteins. Patras, Greece. 18-20 June [**Award for Best Poster presentation**].

62. Panoutsou S., Skretas G. 2015. Discovery of chemical substances with possible therapeutic properties against motor neuron disease. NMR Applications in Life Sciences Exploring Peptides & Proteins. Patras, Greece. 18-20 June.

61. Delivoria, D.C., and Skretas, G. 2015. Identification of potentially therapeutic short cyclic peptides that rescue the misfolding of a carcinogenic p53 variant. NMR Applications in Life Sciences. Patras, Greece. 18-20 June.

60. Mavroidi, B., Matis, I., Delivoria, D. C., Paravatou-Petsotas, M., Skretas, G., Pelecanou, M. 2015. Evaluation with CD and cellular assays of new aggregation inhibitors of the  $\beta$ -amyloid peptide of Alzheimer's disease. 9<sup>th</sup> Panhellenic Interdisciplinary Conference on Alzheimer's Disease and 1<sup>st</sup> Mediterranean on Neurodegenerative Diseases. Thessaloniki, Greece. 14-17 May.

59. Linardaki, Z., Stavropoulou, A.V., Matis, I., Delivoria, D. C., Skretas, G., Margarity, M., Efthimiopoulos, S. 2015. Effects of Selected Biosynthetic Cyclic Peptides on A $\beta$  Oligomer Formation and on the Toxic Action of A $\beta$  Oligomers in Primary Neurons. 9th Panhellenic Interdisciplinary Conference on Alzheimer's Disease and 1st Mediterranean on Neurodegenerative Diseases. Thessaloniki, Greece. 14-17 May.
58. Matis, I., Delivoria, D. C., Mavroidi, B., Papaevgeniou, N., Chondrogianni, N., Pelecanou, M., Skretas, G. 2015. Molecular evolution of compounds that rescue the misfolding and the associated pathogenic effects of proteins associated with protein misfolding diseases. EMBO Conference on Molecular chaperones: From molecules to cells and misfolding diseases. Heraklion, Crete, Greece. 8-13 May [**Award for Best Poster presentation**].
57. Skretas, G. 2015. Directed evolution of small-molecule therapeutics against neurodegenerative diseases. 6th Mikrobiokosmos Conference. Athens, Greece. 3-5 April.
56. Matis, I., Mavroidi V., Delivoria D. C., Pelecanou M., Skretas G. 2015. Biosynthesis and genetic screening of compounds, as potential therapeutic means for Alzheimer's disease. 6<sup>th</sup> Mikrobiokosmos Conference. Athens, Greece. 3-5 April.
55. Delivoria, D. C., and Skretas, G. 2015. Identification of potentially therapeutic cyclic peptides that enhance the stability of a carcinogenic p53 variant. 6th Conference of the Hellenic Scientific society Mikrobiokosmos, Athens, Greece. 3-5 April.
54. Dimitra Zarafeta, Dimitrios Kissas, Efthymios Ladoukakis, Aristotelis Chatziioannou, Christopher Sayer, Misha Isupov, Jennifer Littlechild, Soley R. Gudbergsdottir, Xu Peng, Sergey Gavrilov, Elizaveta A. Bonch-Osmolovskaya, Georgios Skretas, Fragiskos N. Kolisis. 2015. Discovery of novel thermostable hydrolases of industrial interest by metagenomic screening 6th Mikrobiokosmos Conference. Athens, Greece. 3-5 April [**Award for Best Poster presentation**].
53. Gialama, D., Kostelidou, K., Kolisis, F. N., Skretas, G. 2015. Making life better for Escherichia coli cells that produce toxic membrane proteins. 6th Mikrobiokosmos Conference. Athens, Greece. 3-5 April.
52. Panoutsou S., Skretas G. 2015. Discovery of chemical substances with possible therapeutic properties against motor neuron disease. 6th Mikrobiokosmos Conference. Athens, Greece. 3-5 April.
51. Gialama, D., Kolisis, F. N., Skretas, G. 2015. Making life better for Escherichia coli cells that produce toxic membrane proteins. EMBO conference on the Mechanisms and regulation of protein translocation. Dubrovnik, Croatia. 21-25 March.
50. Matis, I., Delivoria, D., Mavroidi, V., Papaevgeniou, N., Chondrogianni, N., Pelecanou, M., Skretas, G. 2015. Molecular evolution of compounds with potentially therapeutic effects against protein misfolding diseases. AD/PD 2015. Nice, France. 18-22 March.
49. Matis, I., Mavroidi, B., Delivoria, D. C., Papaevgeniou, N., Chondrogianni, N., Pelecanou, M., Skretas, G. 2015. Molecular evolution of compounds with potentially therapeutic effects against protein misfolding diseases. EMBO Conference on The regulation of aging and proteostasis. Jerusalem, Israel. 15-20 February.

48. Zarafeta, D., Ladoukakis, E., Kissas, D., Gudbergsdottir, S. R., Gavrilov, S., Chatziioannou, A., Bonch-Osmolovskaya, E. A., Peng, X., Skretas, G., Kolisis, F. N. 2015. Discovery and characterisation of two thermostable hydrolases from HotZyme metagenomes. The HotZyme Project Final Symposium: Discovery of Extremophilic Novel Enzymes with Application for Industrial Biotechnology. Haifa, Israel. 9-10 February.
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. 1<sup>st</sup> Meeting of the COST PROTEOSTASIS Network. Valencia, Spain. 5-7 November.
46. Zarafeta, D., Ladoukakis, E., Kissas, D., Gudbergsdottir, 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., Gudbergsdottir, 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., Gudbergsdottir, 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. 16<sup>th</sup> 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", 64<sup>th</sup> 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. 64<sup>th</sup>

Congress of the Hellenic Society of Biochemistry and Molecular Biology. Athens, Greece. December 6-8. **[Award for Best Poster presentation]**.

37. Gialama, D., Kolisis, F., and Skretas, G. 2013. Engineering *Escherichia coli* strains that suppress the toxicity of membrane protein overexpression. 64<sup>th</sup> 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. 64<sup>th</sup> 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. 64<sup>th</sup> 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., Kollis, 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*. 15<sup>th</sup> 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*. 26<sup>th</sup> 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., Micha-Screttas, M., Steele, B.R., Screttas, C.G., and Wood, D.W. 2010. Engineered bacteria for the discovery and assessment of human endocrine modulators. 3<sup>rd</sup> 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. 20<sup>th</sup> 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. 18<sup>th</sup> 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. 229<sup>th</sup> 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. 229<sup>th</sup> 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. 17<sup>th</sup> 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. 16<sup>th</sup> 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.

## ***Other Activities***

### **Member of scientific societies**

1. European Federation of Biotechnology
2. The Protein Society
3. American Chemical Society
4. American Institute of Chemical Engineers

### **Reviewer for peer-review journals**

1. PLoS One
2. BBA – Biomembranes
3. Mechanisms of Ageing and Development
4. Marine Drugs
5. Microbial Cell Factories
6. Catalysts
7. Frontiers in Microbiology
8. Journal of Microbiology
9. Applied Biochemistry and Biotechnology
10. Analyst
11. Molecules
12. Gene Reports

### **Reviewer for research proposals**

1. 2010, 2015. Project evaluator. General Secretariat of Research and Technology - Greece
2. 2014. Project evaluator. The Ministry of Education, Youth and Sports – Czech Republic: Czech-Norwegian Research Programme
3. 2014. Project evaluator. European Commission: ERASynBio Joint Call for Transnational Research Projects: Building Synthetic Biology Capacity Through Innovative Transnational Projects

### **Organizer of conferences and workshops**

1. July 2018. Organizing Committee Member, International Conference on Biotechnology 2018 - Novel Trends and Innovations in Biotechnology, Rome, Italy
2. March 2018. Organizing Committee Member, Biotech-2018, Rome, Italy
3. 3. October 2017. Organizing Committee Member, 10th Swedish-Hellenic Life Sciences Conference, Athens, Greece
4. November 2016. Organizing Committee Member -12<sup>th</sup> Euro Biotechnology Congress, Alicante, Spain.
5. July 2016. Organizing Committee Member - 2<sup>nd</sup> Industrial Biotechnology and Bioeconomy Congress, Berlin, Germany.



6. October 2015. Organizing Committee Member - 8<sup>th</sup> Swedish-Hellenic Life Sciences Conference, Athens, Greece.
7. 2013 - 2014. Organizing Committee Member of the Annual Seminar Series of the Institute of Biology, Medicinal Chemistry and Biotechnology, National Hellenic research Foundation, Athens, Greece.
8. 2012 - 2013. Organizing Committee Member of the Annual Seminar Series of the Institute of Biology, Medicinal Chemistry and Biotechnology, National Hellenic research Foundation, Athens, Greece.
9. 2011 - 2012. Organizing Committee Member of the Annual Seminar Series of the Institute of Biology, Medicinal Chemistry and Biotechnology, National Hellenic research Foundation, Athens, Greece.
10. October 2011. Organizing Committee Member - 4<sup>th</sup> Swedish-Hellenic Life Sciences Conference & Course on Systems Biology, Athens, Greece.
11. 2010 - 2011. Organizing Committee Member of the Annual Seminar Series of the Institute of Biology, Medicinal Chemistry and Biotechnology, National Hellenic research Foundation, Athens, Greece.