

BRIEF CV

Name : Dimitrios Gatos
Date and Place of Birth : June 22, 1958, Steni-Euboea, Greece
Official Address : Department of Chemistry, University of Patras, 26110 Patras, Greece.
Nationality : Greek
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Education

1980 Diploma in Chemistry, University of Patras
1986 PhD in Organic Chemistry, University of Patras

Career-Employment

1981-1988 Scientific Colleague, Department of Chemistry, University of Patras
1988-1992 Lecturer, Department of Chemistry, University of Patras
1992-2003 Assistant Professor, Department of Chemistry, University of Patras
2003-today Associate Professor, Department of Chemistry, University of Patras

Languages

Greek (Native)
English

Awards

Scholarships by State Scholarship's Foundation of Greece for 3 years during my diploma studies at Chemistry Department, University of Patras.

Postdoctoral Research

1990 Research work for six months at Max-Planck Institute for Biochemistry in Munich, Germany.

Supervisor of diploma/master/PhD theses

Supervisor of 6 PhD theses (4 finalized, 2 ongoing), 24 master theses and 56 diploma theses.

Research Activities

Main topic: Chemistry of Aminoacids, Peptides and Proteins

- Development of methodologies for peptide and protein synthesis
- Solid Phase Peptide and Organic Synthesis
- Development of resins for solid phase peptide and organic synthesis
- Convergent peptide and protein synthesis
- Synthesis of cysteine-rich peptides and proteins
- Chemical ligation methods of protein synthesis
- Amino acid derivatives
- Pegylated agents

Publications

Publications in international journals : 41

Book chapters: 2

Publications in symposium proceedings: 30

Symposium abstracts: 12

Patents: 5

Citations (self citations not included): >1160

Citations in international patents: >3000

h-index: 17

Reviewer: 3

1. Publications in international journals

1. D. Theodoropoulos, C. Poulos, D. Gatos, P. Cordopatis, E. Escher, Z. Mizrahi, D. Regoli, D. Dalietos, A. Furst and T. D. Lee,
Conformationally Restricted C-Terminal Peptides of Substance P. Synthesis, Mass Spectral Analysis and Pharmacological Properties,
J. Med. Chem., 1985, **28**, 1536-1539.
2. K. Barlos, D. Gatos, J. Kallitsis, D. Papaioannou, P. Sotiriou and W. Schäfer,

- Verknüpfung von Aminosäuren mit Hydroxygruppen enthaltenden Harzen und ihre Anwendung zur Synthese von Peptiden mit N-Tritylamino-säure-(1-benzotriazolylestern),*
Liebigs Ann. Chem., 1987, 1031-1035.
3. K. Barlos, D. Gatos, J. Kallitsis, D. Papaioannou and P. Sotiriou,
Anwendung von 4-Polystyryltriphenylmethylchlorid zur Synthese von Peptiden und Aminosäure-Derivaten,
Liebigs Ann. Chem., 1988, 1079-1081.
4. K. Barlos, D. Gatos, J. Hondrelis, J. Matsoukas, G. Moore, W. Schäfer and P. Sotiriou,
Darstellung neuer säureempfindlicher Harze vom sek.-Alkohol-Typ und ihre Anwendung zur Synthese von Peptiden,
Liebigs Ann. Chem., 1989, 951-955.
5. K. Barlos, D. Gatos, J. Kallitsis, G. Papaphotiou, P. Sotiriou, Y. Wenqing and W. Schäfer,
Darstellung Geschützter Peptid-fragmente unter Einsatz Substituierter Triphenylmethyl-Harze,
Tetrahedron Lett., 1989, **30(30)**, 3943-3946.
6. K. Barlos, D. Gatos, S. Kapolos, G. Papaphotiou, W. Schäfer and Y. Wenqing,
Veresterung von Partiell Geschützten Peptid-fragmenten mit Harzen. Einsatz von 2-chlorotriptylchlorid zur Synthese von Leu¹⁵-Gastrin I,
Tetrahedron Lett., 1989, **30(30)**, 3947-3950.
7. K. Barlos D. Gatos, S. Koutsogianni, W. Schäfer, G. Stavropoulos and Y. Wenqing,
Darstellung und einsatz von N-Fmoc-O-Trt-Hydroxyaminosäuren zur Solid Phase Synthese von Peptiden,
Tetrahedron Lett., 1991, **32(4)**, 471-474.
8. K. Barlos, O. Chatzi, D. Gatos, G. Stavropoulos and T. Tsegenidis,
Fmoc-His(Mmt)-OH und Fmoc-His(Mtt)-OH. Zwei neue Histidin-derivate Nim-Geschützt mit Säure-Hochempfindlichen gruppen. Darstellung, eigenschaften und einsatz in der Peptidsynthese,
Tetrahedron Lett., 1991, **32(4)**, 475-478.

9. K. Barlos, O. Chatzi, D. Gatos and G. Stavropoulos,
2-Chlorotrityl Chloride Resin. Studies on Anchoring of Fmoc-Amino Acids and Peptide Cleavage,
Int. J. Pept. Protein Res., 1991, **37(6)**, 513-520.
10. K. Barlos, D. Gatos and W. Schäfer,
Synthesis of Prothymosin α (ProTa)-a Protein Consisting of 109 Amino Acid Residues,
Angew. Chem., Int. Ed. Engl., 1991, **30(5)**, 590-593.
11. K. Barlos, D. Gatos, S. Koutsogianni, G. Papaphotiou, C. Poulos and T. Tsegenidis,
Solid Phase Synthesis of Partially Protected and Free Peptides Containing Disulfide Bonds by Simultaneous Cysteine Oxidation-Release from the 2-Chlorotrityl Resin,
Int. J. Pept. Protein Res., 1991, **38**, 562-568.
12. K. Barlos, D. Gatos, S. Kapolos, C. Poulos, W. Schäfer and Y. Wenqing,
Application of the 2-Chlorotrityl Resin in the Solid Phase Synthesis of (Leu¹⁵)- Gastrin I and Unsulfated Cholecystokinin Octapeptide. Selective O-Deprotection of Tyrosine,
Int. J. Pept. Protein Res., 1991, **38**, 555-561.
13. K. Barlos, D. Gatos, G. Papaphotiou and W. Schäfer,
Synthese von Calcitonin-Derivaten durch Fragmentkondensation in Lösung und am 2-Chlorotrityl-Harz,
Liebigs Ann. Chem., 1993, 215-220.
14. J. Matsoukas, J. Hondrelis, G. Agelis, K. Barlos, D. Gatos, R. Ganter, D. Moore and G. Moore,
Novel Synthesis, of Cyclic Amide-Linked Analogs of Angiotensins II and III,
J. Med. Chem., 1994, **37**, 2958-2969.
15. A. Aletras, K. Barlos, D. Gatos, S. Koutsogianni and P. Mamos,
Preparation of the Very Acid Sensitive Fmoc-Lys(Mtt)-OH. Application in the Synthesis of Side Chain to Side Chain Cyclic Peptides and Oligolysin Cores Suitable for the Solid Phase Assembly of MAPs and TASPes,
Int. J. Pept. Protein Res., 1995, **45**, 488-496.

16. P. Athanassopoulos, K. Barlos, D. Gatos, O. Hatzi and C. Tzavara,
Application of 2-Chlorotrityl Chloride in Convergent Peptide Synthesis,
Tetrahedron Lett., 1995, **36**, 5645-5648.
17. G. Stavropoulos, D. Gatos, V. Magafa and K. Barlos,
*Preparation of Polymer-bound Trityl-hydrazides and their Application in
the Solid Phase Synthesis of Partially Protected Peptide Hydrazides*,
Lett. Pept. Sci., 1995, **2**, 315-318.
18. K. Barlos, D. Gatos, O. Hatzi, N. Koch and S. Koutsogianni,
*Synthesis of the Very Acid Sensitive Fmoc-Cys(Mmt)-OH and its Application in
Solid Phase Synthesis*,
Int. J. Pept. Protein Res., 1996, **47**, 148-153.
19. D. Gatos, C. Tzavara, P. Athanassopoulos and K. Barlos,
MPLC-Purification of Protected Peptide Fragments,
Lett. Pept. Sci., 1996, **3**, 241-246.
20. D. Gatos*, S. Patrianakou, O. Hatzi and K. Barlos,
*Comparison of the Stepwise and Convergent Approaches in the Solid-Phase
Synthesis of Rat Tyr⁰-Atriopeptin II*,
Lett. Pept. Sci., 1997, **4**, 177-184.
21. K. Barlos, D. Gatos, and S. Koutsogianni,
*Fmoc/Trt-amino acids: Comparison to Fmoc/tBu-Amino Acids in Peptide
Synthesis*,
J. Pept. Res., 1998, **51**, 194-200.
22. S. Eleftheriou, D. Gatos, A. Panagopoulos, S. Stathopoulos and K. Barlos,
Attachment of Histidine, Histamine and Urocanic acid to Resins of the Trityl-Type,
Tetrahedron Lett., 1999, **40**, 2825-2828.
23. K. Barlos and D. Gatos,
9-Fluorenylmethyloxycarbonyl/tButyl-Based Convergent Protein Synthesis,
Biopolymers (Peptide Science), 1999, **51**, 266-278.
Review Article

24. D. Gatos* and C. Tzavara,
Comparison of the Solid-Phase Fragment Condensation and Phase-Change Approaches in the Synthesis of Salmon I Calcitonin,
J. Peptide Res., 2001, **57**, 168-174.
25. S. Mourtas, D. Gatos and K. Barlos,
Solid Phase Synthesis of Benzothiazolyl Compounds,
Tetrahedron Lett., 2001, **42**, 2201-2204.
26. S. Mourtas, D. Gatos, V. Kalaitzi, C. Katakalous and K. Barlos,
S-4-Methoxytrityl- Mercapto Acids. Synthesis and Application,
Tetrahedron Lett., 2001, **42**, 6965-6967.
27. S. Mourtas, D. Gatos, M. Karavoltos, C. Katakalous and K. Barlos ,
Resin-bound Mercapto Acids: Synthesis and Application,
Tetrahedron Lett., 2002, **43**, 3419-3421.
28. S. Mourtas, C. Katakalous, A. Nicolettou, C. Tzavara, D. Gatos and K. Barlos,
Resin-bound aminothiols. Synthesis and Application.
Tetrahedron Lett., 2002, **44**, 179-182.
29. M. Karavoltos, S. Mourtas, D. Gatos and K. Barlos,
SPS of Protected Peptidyl Aminoalkyl Amides,
J. Peptide Sci., 2002, **8**, 615-620.
30. M. Karavoltos, S. Mourtas, D. Gatos and K. Barlos,
Solid phase insertion of diamines into peptide chains,
Tetrahedron Lett., 2003, **44**, 3979-3982.
31. S. Koutsopoulos, K. Barlos, D. Gatos, E. Dalas, *The effect of various prothymosin α fragments on the crystal growth of hydroxyapatite in aqueous solution*,
Journal of Crystal Growth, 2004, **267**, 306-311.
32. S. Goulas, D. Gatos* , K. Barlos, *Convergent solid-phase synthesis of hirudin*,
J. Peptide Sci., 2006, **12**, 116-23.

33. E. Dalas, A. Chalias, D. Gatos and K. Barlos, *The inhibition of calcium carbonate crystal growth by the cysteine-rich Mdm2 peptide*, Journal of Colloid and Interface Science, 2006, **300**, 536-542.
34. E. Dalas, K. Barlos, D. Gatos and P. Manis. *Effect of the cysteine-rich Mdm2 peptide in the crystal growth of hydroxyapatite in aqueous solution*, Crystal Growth and Design, 2007, **7**, 132-135.
35. Z. Vasileiou, K. K. Barlos and D. Gatos*. *Convergent solid-phase and solution approaches in the synthesis of the cysteine-rich Mdm2 RING finger domain*, J. Peptide Sci., 2009, **15**, 824-831.
36. Z. Vasileiou, K. K. Barlos, D. Gatos, K. Adermann, C. Deraison and K. Barlos. *Synthesis of the Proteinase Inhibitor LEKTI Domain 6 by the Fragment Condensation Method and Regioselective Disulfide Bond Formation*, Biopolymers (Peptide Science), 2010, **94**, 339-349.
37. K. K. Barlos, D. Gatos, Z. Vasileiou and K. Barlos. *An optimized chemical synthesis of human relaxin-2*, J. Peptide Sci., 2010, **16**, 200-211.
38. I. Friligou, E. Papadimitriou, D. Gatos, J. Matsoukas and T. Tselios. *Microwave-assisted solid-phase peptide synthesis of the 60–110 domain of human pleiotrophin on 2-chlorotrityl resin*, Amino Acids, 2011, **40**, 1431-1440.
39. T. Tselios, M. Aggelidakis 1, A. Tapeinou 1, V. Tseveleki, I. Kanistras, D. Gatos and J. Matsoukas. *Rational Design and Synthesis of Altered Peptide Ligands based on Human Myelin Oligodendrocyte Glycoprotein 35–55 Epitope: Inhibition of Chronic Experimental Autoimmune Encephalomyelitis in Mice*, Molecules, 2014, **19**, 17968-17984.
40. G. Deraos, M. Rodi, H. Kalbacher, K. Chatzantoni, F. Karagiannis, L. Synodinos, P. Plotas, A. Papalois, N. Dimisianos, P. Papatathanasopoulos, D. Gatos, T. Tselios, V. Apostolopoulos, A. Mouzaki and J. Matsoukas. *Properties of myelin altered peptide ligand cyclo(87-99)(Ala91,Ala96) MBP87-99 render it a promising drug lead for immunotherapy of multiple sclerosis*, European Journal of Medicinal Chemistry, 2015, **101**, 13-23.

41. M. Ieronymaki, M. E. Androutsou, A. Pantelia, I. Friligou, M. Crisp, K. High, K. Penkman, D. Gatos and T. Tselios. *Use of the 2-chlorotrityl chloride resin for microwave-assisted solid phase peptide synthesis*, Biopolymers (Peptide Science), 2015, **104**, 506-514.

2. Book chapters

1. K. Barlos and D. Gatos,
Convergent Peptide Synthesis,
In "Fmoc Solid Phase Peptide Synthesis" (The Practical Approach Series) W. C. Chan and P. D. White (Eds), Oxford University Press, New York, 2000, pp. 215-228.
2. K. Barlos, D. Gatos, S. Eleftheriou, S. Mourtas, C. Tzavara and P. Athanassopoulos,
Application of Resins of the Trityl Type in the "Solid Phase Organic Synthesis" of Thiol-containing Compounds,
In "Bioactive Peptides in Drug Discovery and Design: Medical Aspects", J. Matsoukas and T. Mavromoustakos (Eds), IOS Press, Amsterdam, 1999, 163-69.

3. Publications in symposium proceedings

1. D. Theodoropoulos, C. Poulos, D. Gatos, P. Cordopatis, R. Couture, J. Mizrahi, D. Regoli and E. Escher,
Influence of the Methionine Sidechain on the Biological Activity of Substance P, Peptides 1982"(Proc.of the 17th European Peptide Symposium), Walter de Gruyter, Berlin,New York, 1983, 521-26.
2. P. Cordopatis, D. Gatos, D. Theodoropoulos, J. Mizrahi, D. Regoli and E. Escher,
Synthesis and Biological Activity of the [Aib⁹]-SP(5-11) Analogue,
"Peptides 1984"(Proc. of the 18th European Peptide Symposium). Alinquist and Wiksell International, Stockholm, 1984, 349-54.
3. K. Barlos, D. Gatos and W. Schäfer,
Synthesis of the 109 residue Protein Prothymosin α by Fragment Assembly on a Solid Support,

- "Peptides 1990"(Proc. of the 21st European Peptide Symposium), E. Giralt and D. Andreu (Eds.), ESCOM Science Publishers B. V., 1991, 247-48.
4. K. Barlos, D. Gatos, O. Chatzi, S. Koutsogianni and W. Schäfer,
Solid Phase Synthesis Using Trityl-type Side Chain Protecting Groups,
"Peptides 1992"(Proc. of the 22nd European Peptide Symposium), C. H. Schneider and A. N. Eberle (Eds.), ESCOM Science Publishers B. V., 1993, 283-84.
 5. K. Barlos, D. Gatos and O. Chatzi,
Two-directional Solid Phase Synthesis,
"Peptides 1992"(Proc. of the 22nd European Peptide Symposium), C. H. Schneider and A. N. Eberle (Eds.), ESCOM Science Publishers B. V., 1993, 281-82.
 6. N. Koch, S. Brandtner, E. Lichte, D. Gatos, K. Barlos and C. Griesinger,
Synthetic and Spectroscopic Studies on Sequences of β -chain Variable Regions of Human Staphylococcal Enterotoxin T-cell Receptors,
"Peptides 1992"(Proc. of the 22nd European Peptide Symposium), C. H. Schneider and A. N. Eberle (Eds.), ESCOM Science Publishers B. V., 1993, 852-53.
 7. K. Barlos, D. Gatos, W. Schäfer, and P. Frischmann,
Improvements in the Chemical Synthesis of Proteins,
"Peptides 1994" (Proc. of the 23rd European Peptide Symposium), H. Maia (Ed.), ESCOM Science Publishers B. V., 1995, 26-27.
 8. K. Barlos, D. Gatos and S. Eleftheriou,
Preparation and properties of Fmoc-Arg(XYZ)_n-OH,
"Peptides 1994" (Proc. of the 23rd European Peptide Symposium), H. Maia (Ed.), ESCOM Science Publishers B. V., 1995, 149-150.
 9. P. Frischmann, W. Schäfer, K. Barlos, and D. Gatos ,
Synthetic Studies on human Tumor Necrosis Factor α ,
"Peptides 1994" (Proc. of the 23rd European Peptide Symposium), H. Maia (Ed.), ESCOM Science Publishers B. V., 1995, 305-306.
 10. D. Panagiotopoulos, J. M. Matsoukas, M. Keramida, D. Gatos, L. S. Monteiro, H. L. S. Maia, R. Yamdagni, Q. Wu, P. Redstone, G. J. Moore, A.A. Laniyonu, M. Saifeddine and M. D. Hollenberg,
Cyclic Thrombin Receptor-derived Peptide Analogues containing D-Phe and D-Arg,

- "Peptides 1994" (Proc. of the 23rd European Peptide Symposium), H. Maia (Ed.), ESCOM Science Publishers B. V., 1995, 359-360.
11. P. Athanassopoulos, K. Barlos, O. Hatzi, D. Gatos and C. Tzavara, *Phase Change during Peptide Synthesis*, "Innovation and Perspectives in Solid Phase Synthesis & Combinatorial Libraries", R. Epton (Ed.), Mayflower Scientific, 1996, 243-246.
 12. A. Aletras, K. Barlos, D. Gatos, S. Koutsogianni and P. Mamos, *Application of Fmoc-Lys(Mtt)-OH in the Preparation of MAPs and MAP-Libraries*, Epith. Klinikes Farmakol. Farmakokin. Ind. Ed. 9: 1995, 129-133 .
 13. A. Aletras, K. Barlos, D. Gatos, S. Koutsogianni and P. Mamos, *Synthesis of Branched Peptides by Fragment Condensation in Solution and on Solid Supports*, "Biomed 1994", J. Matsoukas (Ed.), Patras, Greece, 1994, 99-102.
 14. P. Athanassopoulos, K. Barlos, D. Gatos, S. Eleftheriou, G. Papaphotiou and C. Tzavara, *Application of Resins of the Trityl Type in Solid Phase Organic Synthesis*, Epith. Klinikes Farmakol. Farmakokin. Ind. Ed. 11: 1997, 122-124 .
 15. D. Gatos, P. Athanassopoulos, C. Tzavara and K. Barlos, *Improvements in Convergent Peptide Synthesis*, "Peptides 1998" (Proc. of the 25th European Peptide Symposium), S. Bajusz and F. Hudecz (Eds), Akadémiai Kiado, Budapest, 1999, 146-147.
 16. K. Barlos, D. Gatos, S. Eleftheriou, S. Mourtas, C. Tzavara and P. Athanassopoulos, *Application of Groups and Resins of the Trityl Type in Sulfur Combinatorial Chemistry*, "Peptides 1998" (Proc. of the 25th European Peptide Symposium), S. Bajusz and F. Hudecz (Eds), Akadémiai Kiado, Budapest, 1999, 752-753.
 17. K. Barlos, D. Gatos, S. Mourtas, A. Nicoletou, M. Karavoltsos, D. Bali, and V. Shoina, *Solid-Phase Synthesis of Thiol and Thioether Functions containing Peptides and Complex Organic Molecules*, "Peptides for the New Millennium" (Proceedings of the 16th American Peptide

- Symposium), G. B. Fields, J. Tam and G. Barany (Eds), Kluwer Academic Publishers, 2000, 198-199.
18. D. Gatos, S. Goulas and K. Barlos, *Studies on the Convergent Synthesis of Hirudin*, "Peptides 2000" (Proceedings of the 26th European Peptide Symposium), J. Martinez and J.-A. Fehrentz (Eds), EDK, Paris, 2001, 1001-1002.
 19. S. Mourtas, M. Karavoltsos, V. Kalaitzi, C. Katakalous, D. Gatos and K. Barlos, *Application of Diamines and Amino thiols in Solid-Phase Synthesis*, "Peptides 2000" (Proceedings of the 26th European Peptide Symposium), J. Martinez and J.-A. Fehrentz (Eds), EDK, Paris, 2001, 257-258.
 20. K. Barlos, D. Gatos, V. Kalaitzi, C. Katakalous, E. Scariba, S. Mourtas, M. Karavoltsos and G. Midard, *Application of Benzhydryl Halides and Amines in Solid Phase Synthesis*, "Peptides 2002" (Proc. 27th European Peptide Symposium), E. Benedetti & C. Pedone (Eds), Edizioni Ziino, Napoli, 2002, 38-39.
 21. D. Gatos, S. Goulas and K. Barlos, *Combination of the Convergent and Native Chemical Ligation Methods in the Total Synthesis of Proteins*, "Peptide Revolution: Genomics, Proteomics & Therapeutics" (Proceedings of the 18th American Peptide Symposium) M. Chorev & T. Sawyer (Eds) 2003, xxx.
 22. A. Karkantzou, P. Tsetseni, D. Gatos and K. Barlos, *Studies on the synthesis of pegylated insulin derivatives*, "Peptides 2004" (Proceedings of the 26th European Peptide Symposium) M. Flegel, M. Fridkin, C. Gilon & J. Slaninova (Eds), KENES International, 2005, 313-314.
 23. G. Deraos, T. Tselios, S. Deraos, L. Synodinos, A. Papalois, D. Gatos and J. Matsoukas, *Design and synthesis of a potent analogue of myelin basic protein MBP₈₇₋₉₉ Epitope: Inhibition of experimental autoimmune encephalomyelitis (Eae)*, "Peptides 2004" (Proceedings of the 26th European Peptide Symposium) M. Flegel, M. Fridkin, C. Gilon & J. Slaninova (Eds), KENES International, 2005, 1109-1110.
 24. Z. Vasileiou, D. Gatos and K. Barlos, *Convergent synthesis of the cysteine-rich Mdm2 RING finger domain*, "Understanding Biology Using Peptides" (Proceedings

- of the 19th American Peptide Symposium) S. Blondelle (Ed.) American Peptide Society, 2005, 138-139.
25. S. Markos, A. Saravanos, M. Batistatos, A. Aletras, D. Gatos and K. Barlos, *Evaluation of polyamide-polystyrene block polymers in peptide synthesis and biochemistry*, “Understanding Biology Using Peptides” (Proceedings of the 19th American Peptide Symposium) S. Blondelle (Ed.) American Peptide Society, 2005, 140-141.
26. Z. Vasileiou, D. Gatos and K. Barlos, *Synthesis of the Mdm2 RING finger domain by combined convergent and native chemical ligation methods*, 29th European Peptide Symposium, Sep. 3-8, 2006, Gdansk, Poland.
27. P. Tsetseni, A. Karkantzou, S. Markos, K. K. Barlos, D. Gatos and K. Barlos, *Improvements in the chemical synthesis of insulin-like peptides*, “Understanding Biology Using Peptides” (Proceedings of the 20th American Peptide Symposium) E. Escher W. Lubell & S Del Valle (Eds) American Peptide Society, 2007.
28. Z. Vasileiou, K. K. Barlos, D. Gatos, K. Adermann, W-G. Forssmann and K. Barlos, *Studies on the synthesis of the kazal-type inhibitor LEKTI domain 6*, “Peptides 2008” (Proceedings of the 30th European Peptide Symposium), H. Hankinen (Ed.), Finnish Peptide Society, 2008, 140-141.
29. K. K. Barlos, Z. Vasileiou, D. Gatos and K. Barlos, *Improved synthesis of relaxin-2*, “Peptides 2008” (Proceedings of the 30th European Peptide Symposium), H. Hankinen (Ed.), Finnish Peptide Society, 2008, 134-135.
30. K. K. Barlos, Z. Vasileiou, V. Chatziharalampous, D. Gatos and K. Barlos, *The Chains of Insulin-Like Peptides Reveal Properties of Oxidoreductases*, “Peptides 2010” (Proceedings of the 31st European Peptide Symposium), M. Lebl, M. Meldal, K. J. Jensen, T. Hoeg-Jensen (Eds), European Peptide Society, 2010

4. Symposium abstracts

1. D. Gatos, C. Tzavara, P. Athanassopoulos and K. Barlos, *Advanced Methods in Protein Synthesis*, 1st Conference “Medicinal Chemistry: Drug Discovery and Design”, Patras, Greece, March 1-3, 2000

Oral presentation.

2. S. Goulas and D. Gatos,
Studies on the Synthesis of Hirudin,
1st Conference “Medicinal Chemistry: Drug Discovery and Design”,
Patras, Greece, March 1-3, 2000.
3. K. Barlos, S. Eleftheriou, D. Gatos, M. Karavoltsos, S. Mourtas, A. Panagopoulos, C. Tzavara and E. Scariba,
Resins in Combinatorial Chemistry and Drug Design,
1st Conference “Medicinal Chemistry: Drug Discovery and Design”,
Patras, Greece, March 1-3, 2000.
4. S. Goulas, D. Gatos and K. Barlos,
Synthesis of Hirudin,
2nd Conference “Medicinal Chemistry: Drug Design and Development”,
Patras, Greece, March 1-3, 2001.
5. C. Katakalous, S. Mourtas, M. Karavoltsos, S. Goulas, D. Gatos and K. Barlos,
Application of Amino thiols in Solid Phase Synthesis,
2nd Conference “Medicinal Chemistry: Drug Design and Development”,
Patras, Greece, March 1-3, 2001.
6. K. Konstandopoulou, S. Mourtas, D. Gatos and K. Barlos,
Synthesis of Benzothiazolyl-peptides,
2nd Conference “Medicinal Chemistry: Drug Design and Development”,
Patras, Greece, March 1-3, 2001.
7. I. Lappas, D. Gatos and K. Barlos,
New Method for Synthesis of Antigens through Polycondensation of Protected Peptide Fragments,
2nd Conference “Medicinal Chemistry: Drug Design and Development”,
Patras, Greece, March 1-3, 2001.
8. K. Fragou and D. Gatos,
Synthetic Studies on Anti-HIV Peptide T-1249,
3rd Conference “Medicinal Chemistry: Drug Design and Development”,
Patras, Greece, March 7-9, 2002.

9. V. Kalaitzi, C. Tzavara, C. Katakalous, E. Scariba, D. Gatos and K. Barlos, *Solid Phase Synthesis of Peptide Amides Using the 2, 4-Dimethoxybenzhydrylamine Resin*, 3rd Conference “Medicinal Chemistry: Drug Design and Development”, Patras, Greece, March 7-9, 2002.
10. D. Karahaliou and D. Gatos, *Studies in the Synthesis of Peptide Thioacids and Thioesters*, 3rd Conference “Medicinal Chemistry: Drug Design and Development”, Patras, Greece, March 7-9, 2002.
11. C. Katakalous, S. Mourtas, M. Karavoltsos, V. Kalaitzi, D. Gatos and K. Barlos, *Solid Phase Synthesis of Cyclic and Linear Peptides Containing Thioether Bonds*, 3rd Conference “Medicinal Chemistry: Drug Design and Development”, Patras, Greece, March 7-9, 2002.
12. E. Scariba, C. Tzavara, V. Kalaitzi, M. Batistatos, D. Gatos and K. Barlos, *Attachment and Cleavage of Monosaccharides onto Resins of the Trityl- and Benzhydryl-type*, 3rd Conference “Medicinal Chemistry: Drug Design and Development”, Patras, Greece, March 7-9, 2002.

5. Patents

1. K. Barlos, D. Gatos, K. K. Barlos, *Improved Chemical Synthesis of Human Relaxin*, GR1006759(B)-2010-04-20.
2. K. Barlos, D. Gatos, K. K. Barlos, *Peptide Synthesis*, GR1006941(B)-2010-08-27.
3. K. Barlos, K. K. Barlos, D. Gatos, *Peptide Resin Conjugate and Use Thereof*, WO2014203193(A1)-2014-12-24.
4. K. Barlos, D. Gatos, K. K. Barlos, Z. Vasileiou, *Preparation of Amino Diacids Containing Peptide Modifiers and their Use in the Preparation of Peptides*, WO2015028966(A2)-2015-03-05.
5. K. Barlos, D. Gatos, K. K. Barlos, M. Ziovas, *Biologically Active Insulin Derivatives*, WO2015083114(A2)-2015-06-11.