



Costas Demetzos

Professor, Pharmaceutical Nanotechnology

Director in the Laboratory of Pharmaceutical Technology, Department of Pharmacy, National and Kapodistrian University of Athens

President of Hellenic Pharmaceutical Society (HPS)

Member of the Executive Committee of European Federation of Pharmaceutical Sciences (EUFEPS) (2014-2016)

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Education

Master of Pharmacy, National and Kapodistrian University of Athens.

PhD in Pharmaceutical Sciences, National and Kapodistrian University of Athens, 1990

Postgraduate education

France: University Rene Descartes

USA: Stanford University and Cancer Research Institute, University of California, San Francisco (UCSF)

Switzerland: Mettler-Toledo Industries

Italy: University of DiSTAM, Milan

Scientific and teaching work

Since 1991, his scientific and teaching work is related to Chemistry of Natural products and Pharmaceutical Nanotechnology while he studies many chemical categories of pharmaceutical compounds, emphasizing in anticancer agents. The innovation of his research, apart from being in numerous publications and announcements in international scientific journals and conferences, has led to awards of international and national patents in Greece and in many European countries, USA, Australia, having as main objects the nanotechnological drug delivery systems and nanodevices. His research work has international recognition and there are more than 3700 cross references related to his research (h index 32).

The total number of publications in international journals is greater than 220, while the total number of announcements in Greek and international conferences is greater than 400. Being a scientific director he participates in national and European research programs. He has concluded many scientific collaborations internationally and within the Greek scientific community. His participation in the European COST programs helped in the mobility of his students and his lab members to Europe. Prof. Costas Demetzos is well known for his research activity in the field of Pharmaceutical Nanotechnology and for this reason he has been and still is invited for lectures and speeches in international scientific conferences, while he collaborates with a great number of scientists in European level, in the field of Nanotechnology. He teaches in the Faculty of Pharmacy of the University of Athens since 1991, initially Chemistry of Natural products and following in 2002 he teaches his main subject, Pharmaceutical Nanotechnology and Pharmaceutical Physics in undergraduate and postgraduate level. He is the author of related University notes, textbooks and monographs. He was responsible for dozens of PhD students and their theses, Master's Diplomas and Undergraduate Dissertations. Also, he has been invited to teach Pharmaceutical Nanotechnology in other Greek Universities. It must be mentioned that he participates as a member of Organizing Committees but also as a president of International and European scientific Conferences, while being an evaluator in many committees like the Greek Ministry of Health, the Qualification Recognition Board in Cyprus, the Greek National Scholarships Foundation, the Greek Drug Administration Office, etc. He is the chairman of the Hellenic Pharmaceutical Society (HPS), from 2008

until today and he represents the Greek Pharmaceutical Science in Europe, through the European Federation for Pharmaceutical Sciences (EUFEPS). He was an elected member of the ExCo of EUFEPS (Network Coordinator) (2013-2016). He involved in the editorial board of scientific journals as an expert in the field of pharmaceutical nanotechnology.

EDUCATION

1983 Diploma (M. Pharm.), Faculty of Pharmacy, Graduated Pharmacist, University of Athens, Greece

1985 License of Pharmaceutical profession, Ministry of Health, Athens, Greece.

1990 Ph.D., University of Athens

5/1991-7/1991, 6/1993-7/1993

Postdoctoral training, Laboratory of Pharmacognosy and Natural Products Chemistry, University Rene Descartes, Paris, France. (*Training on spectroscopic methods and on the synthesis of natural products*).

1994-1995

- Postdoctoral training, Stanford University, Palo Alto, California, USA (*synthesis and mechanism of action of Natural Products with Anticancer activity*).
- Postdoctoral, University of California, San Francisco U.S.A. Department of Cellular and Molecular Pharmacology, Cancer Research Institute (*Pharmaceutical Nanotechnology, Drug Delivery Systems*).

13/5/96 - 13/6/96

Laboratory of Chromatographic Analysis. Pharmaceutical Industry BIORYL S.A, Athens, Greece Training in Gas Chromatography

2003

Training on Advanced Program Thermal Analysis Seminars for DSC (Differential Scanning Calorimetry), and for TGA (Thermogravimetric Analysis) in METTLER-TOLEDO (Switzerland, Zurich, September 2003)

RESEARCH INTERESTS

1. Preparation of liposomes, dendrimers, solid lipid nanoparticles, nanoemulsions and nanosystems encapsulating drugs or potentially biological active compounds; physicochemical characterization; *in vitro* and *in vivo* studies: advanced drug delivery nano systems and fractal analysis of their morphology.
2. Physical Pharmacy. Thermal Analysis (DSC) studies on lipid bilayers interactions with biologically active compounds, RAMAN spectroscopy, ¹³C NMR, SEM and AFM studies.
3. Isolation of biologically active natural products; design and develop carriers incorporated natural biomolecules.

Publications, Congresses, Patents

>4000 International Citations (h index 32)

>220 Peer review publications in International Journals and Book Series

>30 publications in Greek Journals

>400 Presentations in International and National (Greece) Congresses.

>100 Invited oral presentation in National and International Congresses and Seminars

PATENTS

6 National Patents (granted)

1 National Patent (pending) 'Method for the production of lipidic vesicles' by N. Naziris, N. Pippa, N. Fikioris, **C. Demetzos**, 2018

1 EPO Patent (pending) 'Method for the production of lipidic vesicles' by N. Naziris, N. Pippa, N. Fikioris, **C. Demetzos**, 2018

1 U.S.A Patent (granted)

1 European Patent (25 European countries) (granted)

1 Australian Patent (granted)

1 Canadian Patent (pending)

1 Japan Patent (pending)

TEACHING EXPERIENCE

UNIVERSITY GRADUATE LEVEL

1992-2002. Responsible for teaching in the Laboratories of the 5th semester in the Department of Pharmacognosy, Faculty of Pharmacy.

2003-to date. Teaching ' *Pharmaceutical Technology- Physical pharmacy and Pharmaceutical Nanotechnology* ', semester 3th Faculty of Pharmacy

2003-to date. Teaching ' *Regulatory affairs in Pharmaceutical Industry and in Pharmaceutical Products* ', semester 9th Faculty of Pharmacy.

2015-to date. Teaching ' *Innovative Pharmaceutical forms* ', semester 4th, Faculty of Pharmacy

POSTGRADUATE LEVEL

1995-2002. Teaching on the postgraduate course ' *Chemistry of Bioactive Natural Compounds* '

A' Semester ' *Spectroscopy studies of Natural Products* ' 1995-96, 1996-97.

B' Semester ' *Structure elucidation of Natural Products* ' 1995-2002

B' Semester ' *Synthesis of Natural Products* ' 1996-1997

1997-2002. Teaching on the postgraduate course ' *Applications of Natural Products* '

B' Semester ' *Quality control of Natural Products* '

2003-to date. Teaching in ' *Industrial Pharmacy / Physical Pharmacy* '.

2015-to date. Teaching in ' *Cosmetics. Innovative products* '

Ph.D and MASTER OF SCIENCES (MSc) SUPERVISION

Supervision of more than 7 Ph.D students. Member of more than 10 Ph. D examination boards of the Universities of Athens, Thessaloniki and Patras, Greece. Supervision of more than 25 M.Sc. .

MEMBER OF SCIENTIFIC SOCIETIES

Member of the American Society of Pharmacognosy

Member of the European Society of Medicinal Plants

Member of the Hellenic Society of Cosmetology

Member of the Hellenic Society of Pharmacochemistry

Member of the Hellenic Pharmaceutical Association (PEF)

Member of the Board of Directors (General Secretariat (2000-2003)).

Member of the Controlled Release Society , 2003 – to date.

Member of the International Liposome Society, 2005- ta date

Member of the Hellenic Society of Thermal Analysis

President of the Hellenic Pharmaceutical Society (HPS)(2008 -)

Vice President of the Hellenic Society of Nanotechnology in Health Sciences (ELENEPY), (2016-)

Member of the Excecutive Committee (ExCo) of European Federation of Pharmaceutical Sciences (EUFEPS) (Network Coordination) (2013-2016).

HONORARY MEMBERSHIPS'

1. Member of the Research Programme Committee of the General Secretary of Research and Technology of the Greek Ministry of Development
2. Member of the Scientific Council of the Greek Drug Association
3. Member of the International Scientific Advisory Board of the International Institute of Anticancer Research.
4. Programme examiner of EPEAEK 'HRAKLITOS', 2003
5. COST Action TD0802 "Dendrimers in biomedical applications"

MEMBER OF SCIENTIFIC COMMITTEE IN INTERNATIONAL CONGRESSES

President or Member of Scientific Committees of several National (Greek) and International Congresses

REVIEWER OF SCIENTIFIC JOURNALS

Reviewer in more than 40 International Scientific Journals

RESEARCH PROJECTS

More than 30 research projects have been completed or are underway with financial support obtained from the Greek government, the EU, Pharmaceuticals and Biotechnology companies.

RESEARCH PROJECTS IN COLLABORATION WITH GREEK BIG PHARMA

- «Research and Development of final formulation of liposomal curcumin in sachets in laboratory scale.». Distinctive title: «Dosage forms of liposomal curcumin in sachets»in collaboration with IN TOUCH HEALTH. (Coordinator: Prof. Costas Demetzos)
- «Physical pharmacy studies of the cosmeceuticals of INTERMED S.A.»Distinctive title: «interTECH:New claims for innovative products»in collaboration withINTERMED S.A. (Coordinator: Prof. Costas Demetzos)
- «Restatement of labels and claims of the leaflet of the nutritional supplement “Sideral©”. Distinctive title: “Study on the technology of Fe supramolecular complexes” in collaboration with WINMEDICA S.A. (Coordinator: Prof. Costas Demetzos)
- «Physicochemical study fo determining new and innovative claims for the product “PREGNADERM extreme hydration body cream”». Distinctive title: “Application of the cerasomes technology on cosmetic products” in collaboration with INTERMED S.A. (Coordinator: Prof. Costas Demetzos)
- «Development of generic liposomal Amphotericin B» in collaboration with DEMO S.A. (Coordinator: Prof. Costas Demetzos)
- «Development of nanocarriers for antitumor peptide» in collaboration with ENORASIS (Coordinator: Prof. G. Sivolapenko and Prof. C. Demetzos)

BOOKS

G.PAPAIOANNOU, C.DEMETZOS, M. VLACHOU *Pharmaceutical Technology I. Principles in Physical Pharmacy and Nanotechnology*. 400 pages, Ed. Parisianos, 2007, Athens

COSTAS DEMETZOS, H. SKAL TSA, A. TSANTILI-KAKOULIDOY, *Pharmaceutical Law*, University of Athens, University notes, Athens, 125 pages, 2008

COSTAS DEMETZOS, Scientific Custody of the Greek edition of the handbook“*Physical Pharmacy*” A.T.Floerence and D. Attwood, Ed. Parisianos, 2014, Athens

COSTAS DEMETZOS, Scientific Custody of the Greek editionof the handbook “*Chemical Thermodynamics. At a Glance*”, H.D.B. Jenkins. Ed. Parisianos, 2015, Athens

COSTAS DEMETZOS, Scientific Custody of the Greek edition of the handbook“*Pharmaceutics. Drug Delivery and Targeting.*” Y. Periee and T. Rades, Ed. Parisianos, 2015, Athens

COSTAS DEMETZOS, STERGIOS PISPAS, NATASSA PIPPA Eds in ‘*Drug delivery Nanosystems. From Bioinspiration and Biomimetics to clinical Applications*’ Pan Stanford, 2018

COSTAS DEMETZOS, NATASSA PIPPA Eds, in ‘*Thermodynamics and Biophysics in Biomedical Nanosystems: Applications and practical considerations*’ Springer, 2018

COSTAS DEMETZOS , NATASSA PIPPA Eds, in ‘*Nanomaterials for clinical applications : case studies in nanomedicines*’ ELSEVIER, 2019

MONOGRAPHS

COSTAS DEMETZOS : Doctorate Monograph: *'Chemical Constituents of Cistus incanus subsp. Creticus (L.) Heywood. Isolation structure identification and Synthesis of a new Flavonoid of Kalanchoe proliferate , R. Hamet'*, Athens, 1990.

COSTAS DEMETZOS: Postdoctoral Monograph: *Stealth liposomal Vinca alkaloids (vinorelbine and vinblastine) and in vitro released studies by buffer and rat plasma.* Cancer Research Institute, Dept. of Cellular and Molecular Pharmacology University of California, San Francisco (UCSF), California U.S.A 1995

COSTAS DEMETZOS; *Physical, Chromatographic and Spectroscopic methods of Analysis of Natural Products.* University of Athens, Athens, 105 pages, 2001.

COSTAS DEMETZOS *Pharmaceutical Technology (Physical Pharmacy)*, Univeristy notes, Athens, 130 pages, 2003

COSTAS DEMETZOS, Monograph on *'Pharmaceutical Nanotechnology: Basic principles and Practical Applications'*, 400 pages, Ed. Parisianou 2015, Athens, Textbook in National Universities

INTERNATIONAL BOOKS -MONOGRAPHS

COSTAS DEMETZOS Monograph on *'Pharmaceutical Nanotechnology: Fundamental and Practical Applications'*, Springer 2016

AWARDS

Honorary award for his achievements in pharmaceutical nanotechnology and for his monograph *'Pharmaceutical nanotechnology. Basic principles and practical applications'*, Ed. Parisianou S.A 2014, during the activities of the 1st congress 'Health days', took place in Athens, 11-13 May, 2018

Honorary award for his contribution to the science of nanotechnology and for the exquisite monograph *'Pharmaceutical nanotechnology. Fundamentals and practical applications"*, Springer 2016 International Congress GENEDIS 2016, Sparta Greece.

Honorary award for the contribution to the science of biomaterials' nanotechnology and for the exquisite book *'Pharmaceutical nanotechnology. Basic principles and practical applications"*, Ed.Parisianou S.A, 2014, from the Hellenic Society of Biomaterials (HSB) during the 10th Biomaterial Congress in Athens 2015.

Honorary distinction for the contribution as a whole to the pharmaceutical science and to education as a Professor of Pharmaceutical Sciences. This distinction took place during the activities of the 11th PanCretan Pharmaceutical Congress, Chania, 2013.

Best Poster Presentation: Design of multi-walled carbon nanotube –liposome drug delivery platforms: thermodynamic approach, N. Pippa, D. D. Chronopoulos, **C. Demetzos**, N. Tagmatarchis, Therma 2016, ΘΕΡΜΑ 2016, 7ο Πανελλήνιο Συνέδριο Θερμικής Ανάλυσης και θερμομετρίας, 27-29 Μαΐου 2016, Ιωάννινα, Ελλάδα

Best Poster Presentation: Preparation, development and in vitro release evaluation of amphotericin B-loaded amphiphilic block copolymer vectors. N. Pippa, M. Mariaki, S. Pispas, **C. Demetzos**, Convention of the Hellenic Society of Biomaterials. 7th -8th November 2014, B.&M. Theocharakis Foundation for the Fine Arts and Music, Athens, Greece

Best Oral Presentation: The metastable phases as modulators of functionality in chimeric liposomes. **C. Demetzos**, N. Pippa, S. Pispas, Therma 2014, 26th -28th September 2014, Larisa, Greece

Best Poster Presentation: Physicochemical characterization of liposomal systems and fractal analysis of their morphology. N. Pippa, S. Pispas, **C. Demetzos**, 1st Congress of Pharmaceutical Sciences, 27th -30th April 2013. Athens, Greece

Best Poster Presentation: ‘Physicochemical characterization of advanced liposomal systems :The role of thermoresponsive polymers’ M. Chountoulesi, A. Kirili, N. Pippa, A. Meristoudi, S. Pispas, **C. Demetzos**, 17st Congress of Pharmaceutical Sciences, (PanHellenic Pharmaceutical Society, PEF) October, 2015, Athens, Greece

Best Poster Presentation: Design of multi-walled carbon nanotube –liposome drug delivery platforms: a thermodynamic approach, N. Pippa, D. D. Chronopoulos, **C. Demetzos**, N. Tagmatarchis, Therma 2016, Therma 2016, 7th Panhellenic congress on thermal Analysis and Calorimetry, 27th -29th May 2014, Ioannina, Greece

Poster award: Applications of DSC and imaging techniques on the development of chimeric/ mixed nanosystems, N. Naziris, F. Saitta, N. Pippa, D. Stellas, V. Chrisostomou, S. Pispas, M. Libera, M. Signorelli, **C. Demetzos**, D. Fessas, 13 MEDICTA Congress on Thermal Analysis and Calorimetry, Loano, Italy, 2017

Member of the Executive Committee (ExCo) of National Medicines Agency (2010-2013)

Editor-in-chief of “*Archeia Pharmakeftiki*”, Official Journal of the Hellenic Pharmaceutical Society (HPS).

Member of the Editorial board of the Journal *Current Nanomedicine (CNANOM)*

Member of the Editorial board of the Journal *Current Nanoscience (CNANO)*

Member of the Editorial board of the Journal *Global Drug and Therapeutics (JGDT)*

Member of the Editorial board of the Journal of ‘*Pharmakeftiki*’. International edition of the Hellenic Pharmaceutical Journal

Guest Editor of *Journal of Thermal Analysis and Calorimetry* in the special issue of “The Application of Thermal Analysis in Pharmaceutical Sciences”

Special Reference of the scientific journal of “Who is publishing in my domain” journal (WiPiMD) for the publication of the review paper entitled: “Differential Scanning Calorimetry (DSC): a tool to study the thermal behavior of lipid bilayers and liposomal stability. **C. Demetzos**, *J. Liposome Res.*; 2008; 18(3):159-73.

Member of the Management Committee of COST Action “Dendrimers in biomedical applications”

Editor of the Greek Edition of Journal of Medical Association (JAMA) (2004-2006)

Peer-review publications

1. Polyphenolic compounds of *Myrtus communis* L., *Fitoterapia*, 1989 Vol LX, 1, p. 94., J. Hinou, **C. Demetzos**, C. Harvala
2. Cytotoxic and antimicrobial principles from the of *Aristolochia longa*, *Int. J. Grude Drug Res.* 1989, 27, p.34, J. Hinou, **C. Demetzos**, C. Harvala, C. Roussakis
3. Iridoides de *Scaevola Montana*, *Ann. Pharm. Fr.* 1989, 47, p. 249, A.L.Skaltsounis, S.Sbahi, **C. Demetzos**, J.Pusset
4. Heterosides polyphenoliques des feuilles de *Cistus creticus* L., *Ann. Pharm. Fr.* 1989, 4, p.314, **C. Demetzos**, S.Mitaku, F.Hotellier, C.Harvala
5. The Ess. Oil of *Cistus parviflorus* and a comparative study of its antimicrobial activity of *Cistus monspeliensis*, *Fitoterapia* 1990, p.439, **C. Demetzos**, J. Hinou, C. Harvala, V. Homatidou
6. A new labdane-type diterpene and other compounds from the leaves of *Cistus creticus* subsp. *Creticus* (L.) HEYWOOD., *J. Nat. Prod.* 1990, 53, p.1365, **C. Demetzos**, C. Harvala, S.M.Philianos, A.L. Skaltsounis
7. Phase-transfer catalysed synthesis of flavonoid glycosites, *Carbohydrate Res.* 1990, 207, p.131., **C. Demetzos**, A.L. Skaltsounis, F. Tillquin, M. Koch
8. Structures and synthesis of quercetin glucosyloside from *Kalanchoe prolifera* (Raym-Hamet), *Heterocycles* 1994, 38(2) p.357., B. Razanamahera, **C. Demetzos**, A.L. Skaltsounis, M. Antriantisiferana, F. Tillequin
9. Bioactive compounds from the buds of *Platanus orientalis* L.and isolation of a new kaempferol glucoside, *Planta Med.* 1993, 59, 517, D. Mitrokotsa, S. Mitaku, **C. Demetzos**, C. Harvala, A. Mentis, S. Perez, D. Kokkinopoulos
10. Cytotoxic and antibacterial activity of labdane type diterpenes from the leaves of *Cistus incanus* subsp. *creticus* (L) Heywood. *Planta Med.* 1994, 60 (1), 34, C. Hinou, **C. Demetzos**, C. Roussakis, J.F.Verbist, C. Harvala
11. A new drimate sesquiterpene, manoyl oxide isomer and other volatile compounds from the resin LADANO from *Cistus incanus* subsp. *creticus* (L) Heywood., *J. Ess. Oill Res.* 1994, 6, 37, **C. Demetzos**, S. Mitaku, A. Loukis, C. Harvala, A. Gally

12. Synthesis and biological activity of 3-deamino-haloanthracyclines, *Anti Cancer Drug Design* 1994, 9, 129., **C. Demetzos**, A.L. Skaltsounis, S. Michel, F. Tillequin, M. Koch, M. Anset, A. Pierre, G.H. Atassi
13. Diterpene esters of malonic acid from the resin LADANO of *Cistus creticus*, *Phytochemistry* 1994, 35(4) 979., **C. Demetzos**, S. Mitaku, A.L. Skaltsounis, M. Couladis, C. Harvala, F. Libot
14. Synthesis of quercetin-3-O-b-D-glucopyranosyl (1-2) b-D-xylopyranoside *via* orthoester methodology, *J. Nat. Prod.* 1994, 57 (9) 1234, **C. Demetzos**, A.L. Skaltsounis, B. Razanamahefa, F. Tillequin
15. Natural metabolites of manoyl oxide and other cytotoxic diterpenes from the resin LADANO of *Cistus creticus*, *Planta Med.* 1994, 60, 590., **C. Demetzos**, S. Mitaku, M. Couladis, C. Harvala, D. Kokkinopoulos
16. Composition and antimicrobial activity of the Ess. Oil of *Cistus creticus* L., *J. Ess. Oil Res.*, 1995, 7, p.407., **C. Demetzos**, A. Loukis, V. Spiliotis, N. Zoakis, N. Stratigakis, H. Katerinopoulos
17. Unduloside, a new irioid glucoside from *Verbascum undulatum*, *J. Nat. Prod.* 1996, 59, 673, A. L. Skaltsounis, E. Tsitsa-Tzardi, **C. Demetzos**, C. Harvala
18. Biotransformation of the flavonoid tiliroside to 7-Methylether tiliroside: bioactivity of this metabolite and its acetylated derivative *Cellular and Molecular Life Science (CMLS)* (formerly *experientia*) 1997, 53, 587-592, **C. Demetzos**, P. Magiatis, M.A. Typas, C. Dimas, R. Sotiriadou, S. Perez, D. Kokkinopoulos
19. Compositions and antimicrobial activity of the essential oil of *Cistus creticus* subsp. *eriocephalus* *Planta Med.* 1997, 63 477-479, **C. Demetzos**, H. Katerinopoulos, A. Kouvarakis, N. Stratigakis, A. Loukis, C. Ekonomakis, V. Spiliotis, J. Tjaknis
20. Cytotoxic activity of labdane type diterpenes against human leukemic cell lines *in vitro*, *Planta Med.* 1998, 64 (3) 208-211, K. Dimas, * **C. Demetzos**, M. Marsellos, R. Sotiriadou, M. Malamas, D. Kokkinopoulos
21. Antiviral *in vitro* activity of *Hypericum perforatum* L. extract on the human cytomegalovirus (HCMV). *Phytoterapy Res.* 1998, 12, 507-511, Axarlis, **C. Demetzos**, S. Mitaku, A.L. Skaltsounis, A. Mentis, M. Malamas, M. Marselos
22. Composition of the essential oil of *Camomilla recutita*(L.) Rausch., grown in Greece, *J. Ess. Oil Res.* 1998 10, 635-636., V. Papazoglou, T. Anastassaki, **C. Demetzos**, A. Loukis

23. The effect of sclareol in the growth of cell cycle progression, *Leukem. Res.* 1999 23, 217-234, K. Dimas, D. Kokkinopoulos, **C. Demetzos**, T. Tzavaras, B. Vaos, M. Malalmas, M. Marsellos
24. Chemical compositions and antimicrobial activity of the resin LADANO of its Ess. Oil and the isolated compounds *Planta Med.* 1999 , 65, 76-78, **C. Demetzos**, B. Stahl, T. Anastassaki, M. Gazouli, L. Tzouvelekis, M. Rallis
25. Volatile compounds of leaves and bracts of wild and cultivated *Origanum dictamnus* L.. *Planta Med.* 1999, 65, 189-191, C. Ekonomakis, **C. Demetzos**, T. Anastassaki, V. Papapzoglou, M. Gazouli, A. Loukis, C. Thanos, C. Harvala
26. Chemotaxonomic survey of wild and cultivated *Cistus* L., species., *Plant Biosystems* 1999, 133 (3) 251-254, **C. Demetzos**, D. Perdetzoglou
27. Cytotoxic and antiproliferative effects of heptaacetyltilirosid in human leulemic cell lines *Leukemia Res.* 1999, 23, 1021-1033, K. Dimas, D. Kokkinopoulos, **C. Demetzos**, B. Vaos, M. Marselos
28. Analysis of labdane-type diterpenes from *Cistus* L., (i.e. subsp. *creticus*, subsp. *eriocephalus*) by GC and GC-MS. *Planta Med.* 1999, 65, 735-739, T. Anastasaki, **C. Demetzos**, D. Perdetzoglou, M. Gazouli, A. Loukis, A. Harvala
29. Cytotoxic activity of two kaempferol glycosides against human leukemic cell lines *Pharmacological Res.* 1999, 41 (1), 85-88, K. Dimas, **C. Demetzos**, S. Mitaku, M. Marselos, T. Tzavaras, D. Kokkinopoulos
30. Cytotoxic activity and antiproliferative effects of a new semisynthetic derivative of ent-3 β -hydroxy-13-epi-manoyl oxid on human leukemic cell lines, *Anticancer Res.* 1999, 19, 4065-4072. K. Dimas, **C. Demetzos**, S. Mitaku, B. Vaos, M. Marsellos, T. Tzabararas, D. Kokkinopoulos
31. Pharmacological activity of natural lipids on skin barrier disruption, *Pharmacological Res.* 2000, 42(1), 55-59, S. Hatziantoniou, M. Rallis, **C. Demetzos**, G. Papaioannou
32. Chemical analysis and antimicrobial studies on three species of *Ferulago* from Greece, *Planta Med.* 2000, 66, 560-563, **C. Demetzos**, D. Perdetzoglou, M. Gazouli, K. Tan, C. Ecomonakis
33. Biological activity of Myricetin and its derivatives against human leukemic cell lines *in vitro* *Pharmacological Res.* 42 (5) 475-8, 2000, K. Dimas, **C. Demetzos**, D. Angelopoulou, A. Kolokouris, T. Mavromoustakos
34. Essential oils and hexane extracts from leaves and fruits of *Cistus monspeliensis*. Cytotoxic activity of ent-13-epi-manoyl oxide and its isomers. *Planta Med.* 2001, 67:168-171, D. Angelopoulou, **C. Demetzos**, C. Dimas, D. Perdetzoglou, A. Loukis

35. An interpopulation study of the essential oils of *Cistus parvoflorus* L. growing in Crete (Greece) *Biochemical Systematic and Ecology* 2001, 29 (4), 405-415. D. Angelopoulou, **C. Demetzos**, D. Perdetzoglou
36. Encapsulation of vinblastine into new liposome formulation prepared from *Triticum* (Wheat Germ) lipids and its activity against human leukemic cell lines *Anticancer Res.* 2001, 20: 4385-4390, H. Maswadeh, S. Hatziantoniou, **C. Demetzos**, K. Dimas, A. Georgopoulos, M. Rallis
37. Labdane type diterpenes down-regulate the expression of c-myc protein but not of bcl-2 in human leukemia T-cells undergoing apoptosis *Leukemia Res.* 2001, 25(6): 21-25, K. Dimas, **C. Demetzos**, V. Vaos, P. Ioannidis, T. Trangas
38. Ether phospholipid-azt conjugates possessing anti-HIV and antitumor cell activity. Synthesis, conformational analysis and study of their thermal effects on membrane bilayers, *Journal of Medicinal Chemistry*, 2001, 24:44(11) 1702-9, T. Mavromoustakos, T. Kalogeropoulou, M. Koufaki, A. Kolokouris, I. Daliani, **C. Demetzos**, Z. Meng, A. Makrigiannis, J. Belzarini, E. Clerq
39. Structure elucidation and conformational properties of a novel bioactive clerodane diterpenes using a combination of high field NMR spectroscopy, computational analysis and X-Ray diffraction, *Bioorganic Medicinal Chemistry Letters* 2001, 11(6): 837-840, A. Kolokouris, T. Mavromoustakos, **C. Demetzos**, A. Terzis, S. Grodolik
40. Structure elucidation, conformational analysis and thermal effects on membrane bilayers of and antimicrobial myricetin ether derivative, *Journal of Heterocyclic Chemistry* 2001, vol. 38 703-710, **C. Demetzos**, D. Angelopoulou, A. Kolokouris, I. Daliani, T. Mavromoustakos
41. Cytotoxic and antinflammatory activity of labdane and cis-clerodane type diterpenes, *Planta Med.* 2001, 67, 614-618, **C. Demetzos**, K. Dimas, S. Hatziantoniou, T. Anastasaki, D. Angelopoulou
42. Accumulation of vinblastine into transfersomes and liposomes in response to a transmembrane ammonium sulfate gradient and their cytotoxic/cytostatic activity *in vitro* *Anticancer Res.* 2001, 21: 2577-2584, H. Maswadeh, **C. Demetzos**, K. Dimas, S. Hatziantoniou, A. Georgopoulos, M. Rallis, P. Dallas.
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4. **U.S.A PATENT (2014) (pending)** Novel nano-carriers for PCK. A fractal analysis as a tool for their rational development. N. Pippa, **C. Demetzos**, S. Pispas, G. Sivolapenko. ; Granted patent in Greece GR1008332 (17-07-2014): "Nanocarriers formulations" N. Pippa, S. Pispas, **C. Demetzos**, G. Sivolapenko.
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NATIONAL PATENTS

The granted National Patents on nanotechnology and natural products chemistry and pharmacology are 6

Contribution to the creation of EMA guidelines

- [1]. The group of the Laboratory of Pharmaceutical Nanotechnology, has recently published several research articles focusing on the fractal morphology of nanoparticles. In the same context, a comment regarding the “Concept paper on the revision of the guideline on immunogenicity assessment of biotechnology-derived therapeutic proteins- EMA/ CHMP/BMWP/42832/2005)” was submitted to European Medicines Agency (EMA).

- [2]. Recently, from our research group (there are several publications concerning the thermotropic behavior of nanoparticles) a comment on “Guideline on process validation for the manufacture of biotechnology-derived active substances and data to be provided in the regulatory submission ' (EMA/ CHMP/BWP/187338/2014)” was submitted to European Medicines Agency (EMA).

Oral and Poster Presentation in International Conferences

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101. PEO-b-PCL/DPPC chimeric nanocarriers: self-assembly, aspaects in aqueous and biological media and drug incorporation. N. Pippa, E. Kaditi, S. Pispas, **C. Demetzos**, IDS8, Biodendrimers, 2012, 5-8 Sept., Toledo, Spain.

102. a.complexation of cationic amphiphilic block polyelectrolyte aggregates with antitumor peptide, N. Pippa, S. Pispas, **C. Demetzos**, G. Sivolapenko, 8th International, Dendrimer Symposium, Madrid, 23-27, June, 2013, Spain.
- b. BBBB International Conference, 26-28 Sept., Athens, Greece
103. a.the interplay between the rate of release from advanced drug delivery nanosystems and their fractal morphology N. Pippa, A. Dokoumetzidis, S. Pispas, **C. Demetzos** 8th International, Dendrimer Symposium, Madrid, 23-27, June, 2013, Spain.
- b. BBBB International Conference, 26-28 Sept., Athens, Greece
104. a.DPPC:MPOx chimeric nanocontainers: the fractal sculpture of novel advanced drug delivery nanosystems and drug release studies M.Merkouraki, N. Pippa, S. Pispas, **C. Demetzos**, 8th International, Dendrimer Symposium, Madrid, 23-27, June, 2013, Spain.
- b. BBBB, International Conference, 26-28 Sept., Athens, Greece.
105. Fractal analysis of conventional and chimeric liposomal aggregates N. Pippa, S. Pispas, **C. Demetzos**, 8th International, Dendrimer Symposium, Madrid, 23-27, June, 2013, Spain.
106. The fractal analysis as a complementary approach to study drug delivery systems: a regulatory proposal **C. Demetzos**, D.A.Tomalia, N. Pippa 8th International, Dendrimer Symposium, Madrid, 23-27, June, 2013, Spain.
107. Preparation and thermal behaviour of DPPC/MPOx chimeric liposomes, N. Pippa, S. Pispas, **C. Demetzos**, 11th Mediterranean Conference on Thermal Analysis and Calorimetry, Medicta 2013, Athens, Greece
108. The fractal morphology and thermal behaviour of liposomal drug nanocarriers, N. Pippa, K. Gardikis, S. Pispas, **C. Demetzos**, 11th Mediterranean Conference on Thermal Analysis and Calorimetry, Medicta 2013, Athens, Greece
109. PEO-b-PCL:DPPC chimeric nanocarriers: self-assembly aspects in aqueous and biological media and drug release studies. N. Pippa, S. Pispas, A. Dokoumetzides, **C. Demetzos**, BBBB International Conference, 26-28 Sept., Athens, Greece
110. Incorporation of dimethoxycurcumin into charged liposomes and the formation kinetics of fractal aggregates of uncharged vectors, M. Hadjidemetriou, N. Pippa, S. Pispas, **C. Demetzos**, BBBB International Conference, 26-28 Sept., Athens, Greece
111. Fractal analysis of liposomal aggregation, N. Pippa, S. Pispas, **C. Demetzos**, BBBB International Conference, 26-28 Sept., Athens, Greece

112. Adverse drug reactions in pediatric patients along with antibiotics administration and healthcare professionals' adverse reactions reporting rate, BBBB International Conference, 26-28 Sept., Athens, Greece, 2013, A. Tosca, M. Geitona, K. Souliotis, **C. Demetzos**
113. Mixed/chimeric liposomes incorporating copolymers as advanced drug delivery systems. N. Pippa, S. Pispas, **C. Demetzos**. In: Materials Today: Biomaterials virtual conference, November 19-21, 2013 (*Invited Poster*)
114. The imaging and the fractal metrology of chimeric liposomes: The role of macromolecular architecture of polymeric guest. N. Pippa, S. Pispas, **C. Demetzos**. ILS 2013 MEETING Liposome advances: progress in drug and vaccine delivery, School of Pharmacy, University of London, London, December 14-17, 2013. (*Poster*)
115. The physicochemical/thermodynamic balance of advanced drug liposomal delivery systems as reflected on the drug release profile. N. Pippa, A. Dokoumetzidis, S. Pispas, **C. Demetzos**, ILS 2013 MEETING Liposome advances: progress in drug and vaccine delivery, School of Pharmacy, University of London, London, December 14-17, 2013. (*Poster*)
116. Advanced Drug Delivery nano Systems (aDDnSs): A proposal for their classification. **C. Demetzos**, N. Pippa, Biodendrimer 2014, 4th International Symposium on Biomedical Applications of Dendrimers, June 18-20, 2014 Lugano, Switzerland (*Poster*)
117. The fractal morphology and thermal behavior of DPPC:PAMAM G4 chimeric liposomes. N. Pippa, S. Pispas, **C. Demetzos**, Biodendrimer 2014, 4th International Symposium on Biomedical Applications of Dendrimers, June 18-20, 2014 Lugano, Switzerland (*Poster*)
118. Bio-inspired chimeric drug delivery nano systems (chi-DDnSs): Their fractal morphology and regulatory aspects. N. Pippa, S. Pispas, **C. Demetzos**, Industrial Technologies 2013, Smart Growth through Research and Innovation, 9-11 April, 2013, Athens, Greece (*Poster*)
119. Bioinspired chimeric drug delivery nano systems (chi-DDnSs) their fractal morphology and regulatory aspects. N. Pippa, S. Pispas, **C. Demetzos**, 1st International Industrial Technology Congress, 9-13 April, Athens, Megaro Mousikis, 2014
120. The innovation in Science and Technology as a demand for bio-better medicines in Europe, **C. Demetzos**, 1st International Industrial Technology Congress, 9-13 April, Athens, Megaro Mousikis, 2014
121. Complexation of cationic amphiphilic block polyelectrolyte aggregates with insulin. In vitro release studies. N. Pippa, M. Karayianni, S. Pispas, **C. Demetzos**, 11th Int. Conference on Nanosciences and Nanotechnologies (NN14), 2014, Thessaloniki

122. Preparation, development and in vitro release evaluation of amphotericin B-loaded amphiphilic block copolymer vectors. N. Pippa, M. Mariaki, S. Pispas, **C. Demetzos**, 11th Int. Conference on Nanosciences and Nanotechnologies (NN14), 2014, Thessaloniki
123. The metastable phases as modulators of functionality in chimeric liposomes. C. Demetzos, N. Pippa, S. Pispas, Therma 2014, 26th -28th September 2014, Larisa, Greece (*Oral Presentation*)
124. The thermotropic behavior of DPPC:PAMAM G-4 chimeric liposomes. N. Pippa, S. Pispas, **C. Demetzos**, Therma 2014, 26th -28th September 2014, Larisa, Greece (*Poster Presentation*)
125. Liposomal forms of anticancer agents beyond liposomal anthracyclines: present and future perspectives. A. Papachristos, N. Pippa, K. Ioannidis, G. Sivolapenko, **C. Demetzos**, 1st International Congress: from drug discovery to drug delivery. 13-15 November, 2014, Athens, Greece
126. The thermotropic behavior of chimeric DPPC:PAMAM G-4 liposomes: their fractal morphology and drug encapsulation. N. Pippa, S. Pispas, **C. Demetzos**, 1st International Congress: from drug discovery to drug delivery. 13-15 November, 2014, Athens, Greece
127. Design and development of amphotericin B – loaded amphiphilic block copolymer vectors. N. Pippa, M. Mariaki, S. Pispas, **C. Demetzos**, 1st International Congress: from drug discovery to drug delivery. 13-15 November, 2014, Athens, Greece
128. Advanced Drug Delivery nano Systems (aDDnSs): A proposal for their classification. **C. Demetzos**, N. Pippa, Biodendrimer 2014, 4th International Symposium on Biomedical Applications of Dendrimers, June 18-20, 2014 Lugano, Switzerland (*Poster*)
129. The fractal morphology and thermal behavior of DPPC:PAMAM G4 chimeric liposomes. N. Pippa, S. Pispas, **C. Demetzos**, Biodendrimer 2014, 4th International Symposium on Biomedical Applications of Dendrimers, June 18-20, 2014 Lugano, Switzerland (*Poster*)
130. Liposomal forms of anticancer agents beyond liposomal anthracyclines: present and future perspectives. A. Papachristos, N. Pippa, K. Ioannidis, G. Sivolapenko, **C. Demetzos**, 1st International Congress: from drug discovery to drug delivery. 13-15 November, 2014, Athens, Greece
131. The thermotropic behavior of chimeric DPPC:PAMAM G-4 liposomes: their fractal morphology and drug encapsulation. N. Pippa, S. Pispas, **C. Demetzos**, 1st International Congress: from drug discovery to drug delivery. 13-15 November, 2014, Athens, Greece

132. Design and development of amphotericin B – loaded amphiphilic block copolymer vectors. N. Pippa, M. Mariaki, S. Pispas, **C. Demetzos**, 1st International Congress: from drug discovery to drug delivery. 13-15 November, 2014, Athens, Greece
133. Block copolymers as membrane protein mimetics: A dual stimuli-responsive copolymer into phospholipid membranes, I. Kolman, N. Pippa, A. Meristoudi, S. Pispas, **C. Demetzos**, Proteins in the World of Synthetic Polymers (workshop), 19-20 March 2015, NHRF, Athens, Greece
134. Stealth polypeptide micelles for insulin encapsulation, N. Pippa, M. Karayianni, S. Pispas, **C. Demetzos**, I. Dimitrov, Proteins in the World of Synthetic Polymers (workshop), 19-20 March 2015, NHRF, Athens, Greece
135. Design and development of temperature-responsive block polyelectrolyte/lysozyme complexes as potential nutraceuticals, N. Pippa, A. Meristoudi, S. Pispas, **C. Demetzos**, Proteins in the World of Synthetic Polymers (workshop), 19-20 March 2015, NHRF, Athens, Greece
136. Synthesis and Solution Properties of Poly(Oligoethylene Glycol Methacrylate-*b*-Vinyl Benzyl Trimethylammonium Chloride). G. Mountrichas, N. Pippa, S. Pispas, **C. Demetzos**, Proteins in the World of Synthetic Polymers (workshop), 19-20 March 2015, NHRF, Athens, Greece
137. Advanced drug delivery nanosystems: a thermotropic study on a dual stimuli-responsive copolymer into phospholipid membranes. I. Kolman, N. Pippa, A. Meristoudi, S. Pispas, **C. Demetzos**, Challenges in Science and Technology of Polymer Materials, 19-23rd May, 2015, Bansko, Bulgaria
138. Insulin/PEG-*b*-PLys hybrid nanostructures: physicochemical properties and protein encapsulation N. Pippa, R. Kalinova, I. Dimitrov, S. Pispas, **C. Demetzos**, Challenges in Science and Technology of Polymer Materials, 19-23rd May, 2015, Bansko, Bulgaria
139. The effect of grafted thermosensitive polymers on the physicochemical characteristics of chimeric liposomal platforms. A. Kyrili, M. Chountoulesi, N. Pippa, A. Meristoudi, S. Pispas, **C. Demetzos**. International Liposome Society 2015 Meeting. Liposome Advances: Progress in Drug and Vaccine Delivery, 19-22 December 2015, UCL School of Pharmacy, London, UK.
140. Calorimetric results of pH-responsive grafted lipid bilayers may contribute to rotational design and investigation of pH-sensitive liposomes. M. Chountoulesi, A. Kyrili, N. Pippa, A. Meristoudi, S. Pispas, **C. Demetzos**. International Liposome Society 2015 Meeting. Liposome

Advances: Progress in Drug and Vaccine Delivery, 19-22 December 2015, UCL School of Pharmacy, London, UK.

141. Temperature-responsive block polyelectrolyte/lysozyme nanocomplexes. Design and Development of potential nutraceuticals. N. Pippa, A. Meristoudi, S. Pispas, **C. Demetzos**. 6th BBBB Conference on pharmaceutical sciences to improve the quality and performance of modern drug delivery systems, September 10-12, 2015, Helsinki, Finland

142. Thermo-responsive innovative polymer grafted liposomes. N. Pippa, A. Meristoudi, S. Pispas, **C. Demetzos**, EUFEPS Annual Meeting, June 15-17, 2015, Geneva, Switzerland.

143. The modulation of physicochemical characterization of chimeric liposomes: the role of the thermoresponsive grafted polymers. A. Kyrili, M. Chountoulesi, N. Pippa, A. Meristoudi, S. Pispas, **C. Demetzos**, IXth Joint Meeting in Medicinal Chemistry, 7-10 June 2015, Athens, Greece

144. Preparation and physicochemical characterization of novel block polyelectrolyte aggregates with antitumor peptide, G. Mountrichas, N. Pippa, S. Pispas, **C. Demetzos**, IXth Joint Meeting in Medicinal Chemistry, 7-10 June 2015, Athens, Greece

145. Antibody-drug conjugates are already marketed: lessons learned. A. Papachristos, N. Pippa, **C. Demetzos**, G. Sivolapenko, Small molecules (original-generics) and Biotechnological Drugs (biosimilars). 1st International Congress of Controlled Release Society-Greek Local Chapter, 27th-28th May 2015, Aegli Zappiou, Athens, Greece

146. Temperature-dependent drug release from innovative polymer grafted liposomes. N. Pippa, A. Meristoudi, S. Pispas, **C. Demetzos**, 1st International Congress of Controlled Release Society-Greek Local Chapter, 27th-28th May 2015, Aegli Zappiou, Athens, Greece

147. Controlled release from advanced Drug Delivery nano Systems: the physicochemical, morphological and thermodynamic characteristics of the vesicle. N. Pippa, S. Pispas and **C. Demetzos**. International Liposome Society 2015 Meeting. Liposome Advances: Progress in Drug and Vaccine Delivery, 19-22 December 2015, UCL School of Pharmacy, London, UK.

148. Chimeric biocompatible block copolymer/ lipid nanostructures: innovative therapeutic devices for controlled release. N. Pippa, S. Pispas and **C. Demetzos**. 6th BBBB Conference on pharmaceutical sciences to improve the quality and performance of modern drug delivery systems, September 10-12, 2015, Helsinki, Finland

149. Pharmaceutical Fractal-omics: The application of -omics in design and development of advanced Drug Delivery nano Systems. N. Pippa and **C. Demetzos**. 306th OMICS International

Conference. International Conference on Medical Physics, 03-05 August, 2015, Birmingham, UK
(*Oral presentation*)

150. Fractal analysis as an analytical tool for bridging the gaps from biosimilars to nanosimilars. **C. Demetzos** and N. Pippa, EUFEPS Annual Meeting, June 15-17, 2015, Geneva, Switzerland (*Oral presentation*)

151. Controlled release from advanced Drug Delivery nano Systems: the physicochemical, morphological and thermodynamic characteristics of the vesicle. N. Pippa S. Pispas and **C. Demetzos**. International Liposome Society 2015 Meeting. Liposome Advances: Progress in Drug and Vaccine Delivery, 19-22 December 2015, UCL School of Pharmacy, London, UK. (*Oral presentation*)

152. The formation of chimeric nanomorphologies, as a reflection of naturally occurring thermodynamic processes, , N. Naziris, N. Pippa, V. Chrysostomou, S. Pispas, **C. Demetzos**, M. Libera, B. Trzebicka, BIOMEPE 2017-Conference on Bio-Medical Instrumentation and Related Engineering and Physical Sciences Organized by the Department of Biomedical Engineering Technological Educational Institute (TEI) of Athens, Athens University of Applied Sciences, 12-13 October 2017, Athens, Greece

153. The utility of drug-to-lipid ratio at the optimization of the liposomal formulation, M. Chountoulesi, N. Naziris, N. Pippa, **C. Demetzos**, BIOMEPE 2017-Conference on Bio-Medical Instrumentation and Related Engineering and Physical Sciences Organized by the Department of Biomedical Engineering Technological Educational Institute (TEI) of Athens, Athens University of Applied Sciences, 12-13 October 2017, Athens, Greece

154. Rational development and characterization of chimeric pH-sensitive liposomes as novel carriers of dimethoxycurcumin, M. Chountoulesi, N. Naziris, N. Pippa, A. Meristoudi, S. Pispas, **C. Demetzos**, Liposome Advances: Progress in Drug and Vaccine delivery (ILS 2017), 16-18 September 2017, Royal Olympic Hotel, Athens, Greece

155. Physicochemical evaluation of liposomal nutraceuticals, N. Pippa, N. Fikioris, **C. Demetzos**, Liposome Advances: Progress in Drug and Vaccine delivery (ILS 2017), 16-18 September 2017, Royal Olympic Hotel, Athens, Greece

156. Self-Assembly of Chimeric Systems Composed of HSPC and pH-Sensitive PDMAEMA-b-PLMA Copolymers, N. Naziris, N. Pippa, V. Chrysostomou, S. Pispas, **C. Demetzos**, M. Libera, B. Trzebicka, 28th Annual Conference of the European Society for Biomaterials (ESB), September 4-8, 2017, Athens, Greece

157. Advanced Biomaterials for Delivery of Food Supplements: A Physicochemical Study, N. Pippa, N. Fikioris, **C. Demetzos**, 28th Annual Conference of the European Society for Biomaterials (ESB), September 4-8, 2017, Athens, Greece
158. Design, preparation and evaluation of chimeric pH-sensitive liposomes incorporating dimethoxycurcumin, M. Chountoulesi, N. Naziris, N. Pippa, A. Meristoudi, **C. Demetzos**, 3rd International congress of the Greek local chapter of the Controlled Release Society (CRS), 19-20 June 2017, Athens, Greece
159. Thermal analysis and evaluation of liposomal systems and classic solid-state pharmaceutical excipients with furosemide, A. Kyrili, A. Siamidi, N. Pippa, S. Pispas, **C. Demetzos**, V. Karalis, M. Vlachou, 3rd International congress of the Greek local chapter of the Controlled Release Society (CRS), 19-20 June 2017, Athens, Greece
160. Liposomal and niosomal nanocarriers: differences in physicochemical characteristics, C. Massala, K. Zouliati, N. Pippa, **C. Demetzos**, 3rd International congress of the Greek local chapter of the Controlled Release Society (CRS), 19-20 June 2017, Athens, Greece
161. The contribution of amphiphilic and pH-sensitive diblock copolymers in the development of functionalized drug delivery nanosystems, N. Naziris, N. Pippa, V. Chrysostomou, S. Pispas, **C. Demetzos**, M. Libera, B. Trzebicka, 3rd International congress of the Greek local chapter of the Controlled Release Society (CRS), 19-20 June 2017, Athens, Greece
162. Thermo-responsive chimeric liposomes as innovative drug nanocarriers, A. Tzani, N. Naziris, N. Pippa, A. Meristoudi, S. Pispas, **C. Demetzos**, 3rd International congress of the Greek local chapter of the Controlled Release Society (CRS), 19-20 June 2017, Athens, Greece
163. Mixed lipid/block copolymer nanovesicles for loading and controlled release of ibuprofen, N. Pippa, D. Stellas, A. Skandalis, S. Pispas, **C. Demetzos**, 5th International Phytocosmetics and Phytotherapy Congress, 14-17 May 2017, Patras Rio, Greece
164. Cryo-TEM Studies on the Scale-related Morphology of Block Copolymer/Lipid Chimeric Nano-assemblies for Pharmaceutical Applications, N. Naziris, N. Pippa, V. Chrysostomou, S. Pispas, **C. Demetzos**, M. Libera, B. Trzebicka, 6th Pharmaceutical Sciences World Congress, 21-24 May, 2017, Stockholm, Sweden
165. Design and development of hybrid lipid/block copolymer nanostructures: physicochemical, morphological and in vitro evaluation. N. Pippa, D. Stellas, A. Skandalis, S. Pispas, **C. Demetzos**. 2nd International Congress of Greek Local Chapter of Controlled Release Society, 22-24 June 2016, Aegli Zappiou, Athens, Greece

166. Controlled drug release from pH-responsive polymer-grafted phospholipid bilayers N. Naziris, N. Pippa, A. Meristoudi, S. Pispas, **C. Demetzos**. 2nd International Congress of Greek Local Chapter of Controlled Release Society, 22-24 June 2016, AegliZappiou, Athens, Greece
167. The physicochemical characteristics of cosmeceutical vehicle in cosmetic product series for acne (ACNOFIX®): innovation and efficacy. N. Pippa, I. Tseti, **C. Demetzos**. 2nd International Congress of Greek Local Chapter of Controlled Release Society, 22-24 June 2016, AegliZappiou, Athens, Greece
168. The effect of grafted thermosensitive polymers on the physicochemical characteristics of chimeric liposomal platforms. A. Kyrieli, M. Chountoulesi, N. Pippa, A. Meristoudi, S. Pispas, **C. Demetzos**. International Liposome Society 2015 Meeting. Liposome Advances: Progress in Drug and Vaccine Delivery, 19-22 December 2015, UCL School of Pharmacy, London, UK.

Contribution in Oral Presentations with colleagues (Dr. N. Pippa) in International Conferences

- 1) Physico-Chemical characterization and Basic Research Principles of Mixed/chimeric Delivery Platforms, **N.Pippa**, S.Pispas, **C. Demetzos**, BIOMEPE 2017-Conference on Bio-Medical Instrumentation and Related Engineering and Physical Sciences Organized by the Department of Biomedical Engineering Technological Educational Institute (TEI) of Athens, Athens University of Applied Sciences, 12-13 October 2017, Athens, Greece
- 2) Mixed lipid/polymer nanosystems: Bio-inspired mimetics of cellular structure and drug delivery applications, **N.Pippa**, S.Pispas, **C. Demetzos**, Liposome Advances: Progress in Drug and Vaccine delivery (ILS 2017), 16-18 September 2017, Royal Olympic Hotel, Athens, Greece
- 3) Connecting the morphology with the thermodynamic and biophysical properties of PH-responsive chimeric nanosystems, N. Naziris, **N. Pippa**, V. Chrysostomou, S. Pispas, **C. Demetzos**, M. Libera, B. Trzebicka, Liposome Advances: Progress in Drug and Vaccine delivery (ILS 2017), 16-18 September 2017, Royal Olympic Hotel, Athens, Greece
- 4) Chimeric lipid/block copolymer nanosystems as Drug Delivery Platforms: Physicochemical and Biocompatibility evaluation, **N. Pippa**, D. Stellas, A. Skandalis, S. Pispas, **C. Demetzos**, 28th Annual Conference of the European Society for Biomaterials (ESB), September 4-8, 2017, Athens, Greece (Oral presentation)

- 5) Mixed and multi-compartmentalized nanosystems: Biomimetic approach of cellular structure and applications in drug delivery. **N. Pippa**, 3rd International congress of the Greek local chapter of the Controlled Release Society (CRS), 19-20 June 2017, Athens, Greece (*Invited Lecture*)
- 6) Design and development of multi wall-carbon nanotube-liposome drug delivery platforms. **N. Pippa**, D.D. Chronopoulos, **C. Demetzos**, N. Tagmatarchis. European Advanced Materials Congress, 23-25 August 2016, M/S Mariella, Viking Line Cruise, Stockholm, Sweden (*Oral presentation*)
- 7) Controlled release from advanced Drug Delivery nano Systems: the physicochemical, morphological and thermodynamic characteristics of the vesicle. **N. Pippa** S. Pispas and **C. Demetzos**. International Liposome Society 2015 Meeting. Liposome Advances: Progress in Drug and Vaccine Delivery, 19-22 December 2015, UCL School of Pharmacy, London, UK. (*Oral presentation*)
- 8) Chimeric biocompatible block copolymer/ lipid nanostructures: innovative therapeutic devices for controlled release. **N. Pippa** S. Pispas and **C. Demetzos**. 6th BBBB Conference on pharmaceutical sciences to improve the quality and performance of modern drug delivery systems, September 10-12, 2015, Helsinki, Finland (*Oral presentation*)
- 9) Pharmaceutical Fractal-omics: The application of -omics in design and development of advanced Drug Delivery nano Systems. **N. Pippa** and **C. Demetzos**. 306th OMICS International Conference. International Conference on Medical Physics, 03-05 August, 2015, Birmingham, UK (*Oral presentation*)
- 10) Fractal analysis as an analytical tool for bridging the gaps from biosimilars to nanosimilars. **C. Demetzos** and **N. Pippa**, EUFEPS Annual Meeting, June 15-17, 2015, Geneva, Switzerland (*Oral presentation*)
- 11) Functional Macromolecular Nanostructures Based on Cationic Amphiphilic Block Polyelectrolyte Aggregates with Insulin, **N. Pippa**, Maria Karayianni, Stergios Pispas, **Costas Demetzos**, Proteins in the World of Synthetic Polymers (workshop), 19-20 March 2015, NHRF, Athens, Greece (*Oral presentation*)
- 12) Chimeric biocompatible block copolymer/lipid nanostructures as drug nanocarriers: from bio-inspiration to in vitro evaluation. **N. Pippa**, S. Pispas, **C. Demetzos**, 1st International Congress: from drug discovery to drug delivery. 13-15 November, 2014, Athens, Greece (*Oral presentation*)

- 13) Bio-inspired chimeric Drug Delivery nano Systems (chi-DDnSs):their fractal hologram and regulatory aspects. **N. Pippa**, S. Pispas, **C. Demetzos**, 1st World Congress on Geriatrics and Neurodegenerative Disease Research, 10-13 April, 2014, Corfu, Greece (*Oral presentation*)
- 14) The fractal analysis as a complementary approach to predict the stability of Drug Delivery nano Systems (DDnSs) in aqueous and biological media: a regulatory proposal or a dream? **C. Demetzos**, **N. Pippa**, 1st World Congress on Geriatrics and Neurodegenerative Disease Research, 10-13 April, 2014, Corfu, Greece (*Oral presentation*)
- 15) The fractal analysis as a complementary approach to predict the stability of Liposomal Drug Delivery nano Systems (LDDnSs) in aqueous and biological media: a regulatory proposal? **C. Demetzos**, **N. Pippa**. ILS 2013 MEETINGLiposome advances: progress in drug and vaccine delivery, School of Pharmacy, University of London, London, December 14-17, 2013. (*Oral presentation*)
- 16) Studies on the Self Assembly of Sterically Stabilized Liposomal Drug Delivery nano Systems (LDDnSs) via fractal analysis.**N. Pippa**, S. Pispas and **C. Demetzos**, ILS 2013 MEETINGLiposome advances: progress in drug and vaccine delivery, School of Pharmacy, University of London, London, December 14-17, 2013. (*Oral presentation*)
- 17) PEO-b-PCL:DPPC chimeric nanocarriers: self-assembly aspects in aqueous and biological media and drug release studies. **N. Pippa**, S. Pispas, A. Dokoumetzidis, **C. Demetzos**, 5th BBBB International Conference, 26-28 September, Athens, Greece (*Oral Presentation*)

Oral and Poster Presentation in National Conferences

The oral and poster presentation in National scientific Congresses and Conferences are more than 200

