

Funded Projects

1. National Strategic Reference Framework Program, **"Application of nanotechnology for the development of sunscreens using natural extracts"** (Nano-UV-Extracts). Operational Program Competitiveness, Entrepreneurship and Innovation 2014-2020 (EPAnEK) Budget: 425.830 € (Budget ICB/NHRF 100.000 €). Coordinator Dr. A. Xenakis
2. National Strategic Reference Framework Program, **QFytoTera: Nanoemulsions of plant oils with moisturizing and insect repellent properties"**. NSRF, Operational Programme Competitiveness, Entrepreneurship and Innovation 2014- 2020, Industrial Partner: Qualia Pharma (Coordinator Dr S. Zographos, IBMCB/NHRF) (Budget: 630,005.37 €, Budget IBMCB/NHRF: 289.900) WP1 leader Dr V. Papadimitriou
3. National Strategic Reference Framework Program, **"Bioconversion of CO2 into high added value bioproducts through sustainable microalgae cultivation processes"** Budget 1.000.000 € (Biomimetics & Nanobiotechnology 150.000,10 €), P.I. NHRF: Dr. Maria Zoumpantioti
4. National Strategic Reference Framework Program **"RIS3-AGROFOOD"**. **"Study and exploitation of olive oil as innovative raw material for special industrial applications to baby food products"**. Budget 250.000 € (Biomimetics & Nanobiotechnology 65.000 €), Coordinator JOTIS, PI for NHRF: Dr. Maria Zoumpantioti
5. National Strategic Reference Framework Program, Action **STHENOS-β/KRIPIS "Targeted therapeutic approaches against degenerative diseases with special focus on cancer and ageing-optimisation of the targeted bioactive molecules"** (NSRF 2015–2020). Budget 790.000,00 € (Biomimetics 84,968€). Coordinator Dr A. Pintzas
6. **Nanobiotechnology**, National Hellenic Research Foundation Project 2402, 2015-2018, Budget 162.635 €. Coordinator: Dr. A. Xenakis
7. National Strategic Reference Framework Program PAVET **"Application of Nanoemulsion Technology to food products based on Oil in Water Emulsions such as vegetable cream and fudge icings"** Budget: 300.000,00 € Contractor: JOTIS SA (NHRF 61.250€). P.I. NHRF: Dr V. Papadimitriou
8. National Strategic Reference Framework Program, Action **"Developmental Projects of Research Organisations- Kripis"2013-2015: "STHENOS"**, Targeted therapeutic approaches

against degenerative diseases, with special focus on cancer and ageing. Budget: 1.500.000,00 € (Biomimetics 174.773€). Coordinator Dr A. Pintzas

9. EU INCO FP7: EURO-MEDITERRANEAN Cooperation through ERANET joint activities and beyond (ERANETMED, 2013-6, Budget: 107.649,45 €. Coordinator NHRF: Dr G.Bonas & A. Xenakis

10. EU INCO FP7: Mediterranean Science, Policy, Research & Innovation Gateway (MEDSPRING), 2013-6 Budget: 289.650 €. Coordinator NHRF: Dr G.Bonas & A. Xenakis.

11. Program Agence Nationale de Recherche (ANR), Institut Carnot, Projet Lipides pour l'industrie et la santé (LISA), France. 2013-14. «micro/nano-émulsions de type e/h biocompatibles et riches en micronutriments : préparation et caractérisation» Budget: 43.000 €. Coordinator: F.Calderon.

12. Program CAPES, Ministry of Education, Brazil. 2010-14. "Nanobiotechnology. Lipase activity" Budget: NHRF 40.000 €. Coordinator R. Souza

13. National Strategic Reference Framework Program "Cooperation" 2010-13. "Development of nanoemulsions as new materials for managing phytoprotective products to reduce the environmental charge" Budget: 449.040,00 (NHRF 147.743€). Coordinator Dr V. Papadimitriou.

14. MED Program 2010-2012 «IP Awareness and Enforcement: innovative services for Mediterranean SMEs -IP-SMEs» No. 1G-MED08-309 (2010-13) Budget: 170.000 €. PI NHRF: Dr. A. Xenakis

15. South East Europe - Transnational Cooperation Programme 2009-2011, "Solutions and Interventions for the Technological Transfer and the Innovation of the Agro-Food Sector in the South East Regions", SEE/A/160/1.1/X Budget: 238.118 €. PI NHRF: Dr. A. Xenakis

16. MED Program 2009-2011 "Mediterranean Transnational Technology Transfer - MET3" Budget: 360.000. Coordinator: Dr. A. Xenakis

17. Program ΕΠΑΝ Cyprus Hellenic Collaboration 2006-7 "Quality and stability of virgin olive oil. The role of endogenous enzymes and antioxidants - biotechnological applications" Budget: 11.740,00 €. Coordinator Dr V. Papadimitriou. Collaboration with the research group of: Prof. Ep. Leondidis, Chemistry Dept. University of Cyprus, Nicosia

18. Program ΕΠΑΝ Franco Hellenic Collaboration 2006-7 "Biocatalysis by immobilized enzymes in mesoporous materials for the biotechnological production of high added value products" Budget: 12.400,00 €. Coordinator NHRF: A. Xenakis. Collaboration with the research group of: Dr M.J. Stébé, Equipe Physico-chimie des Colloïdes (UMR 7565) Faculté des Sciences Université de Nancy

- 19.** Program ΠΑΒΕΤ 2005: **“Production of high added value products by the biotechnological application of lipases as biocatalysts”** Contractor: NEOKEM SA Budget: 35.000,00 €. Coordinator NHRF: A. Xenakis
- 20.** Program ΕΠΑΝ - Liaison Offices of Universities and Research Centers. (2005-8) **“Development of a Liaison office at the NHRF”**. Budget: 300.000,00 € Coordinator NHRF: A. Xenakis
- 21.** Program «CRETE - COOPERATION» of the Dir.1334/02 – Sitia, Mirampelo, Peza and Milopotamos Unions- ΟΠΕΚΕΠΕ (2004-5) **“Study of parameters affecting the quality of greek virgin olive oils. Degree of maturity and natural antioxidants content”** Budget 29.759,52 € Collaboration with the research group of Prof N. Chaniotakis Chemistry dept., Univ.of Crete
- 22.** Program «ΣΥΝΕΡΓΑΣΙΑ» of the Dir.1334/02 – ELAIOURGIKI - ΟΠΕΚΕΠΕ (2003-4) **“Determination of the most significant and usual quality problems encountered in greek olive oils. Evaluation and therapeutic actions”** Budget 20.000,00 € Collaboration with the research groups of: 1. ELAIOURGIKI SA. 2. Assos.Prof.M.Tsimidou, Food Chem. & Technol. Lab., Univ. of Thessaloniki 3. As.Prof.E.Psomiadou, Food Chem lab., Chemistry dept., Univ.of Ioannina
- 23.** Program IKYDA (2002-4) **“Enzyme immobilization in microemulsion organogels – Study in supercritical fluids”**. Collaboration με Prof. Werner Kuntz Institute of Physical and Theoretical Chemistry, Regensburg University, Regensburg, Germany Budget 10.000,00 €.
- 24.** Program ΕΠΑΝ **“Supporting research groups for exploiting research results. Finding and valorizing results through spin off company creation. PhaseA’**. Preparation of the investment” (2002-3) 01 ΠΡΑΞΕ 18. Budget: 44.000,00 €. Coordinator: A. Xenakis
- 25.** Program ΕΠΑΝ ΠΑΒΕΤ 2000 00BE58 (2001-3) **“New systems for delivery of drugs and biologically active substances with repetitive and controlled release”** Contract with: Pharmathen SA. Budget: 83.436.000Grd. (NHRF 3.350.000 Grd.) Coordinator NHRF: A. Xenakis.
- 26.** Program of Greek-Spanish Collaboration (2000-2001) **“Application of new immobilized enzymic systems for the synthesis of pharmaceuticals”** Coordinator NHRF: A. Xenakis. Collaboration with the research group of Prof. J.V. Sinistera Cago, Dept Organic & Pharmaceutical Chemistry, Faculty of Pharmacy Universidad Complutense de Madrid» Budget: 4.200.000 Grd Coordinator NHRF: A. Xenakis.
- 27.** Program TEI Athens, Cosmetology Dept. School of health professions (1999-2001) **“Lipolytic substances in microemulsions”**. Coordinator: Prof.E. Protopapa. Budget: 5.000.000 Grd Coordinator NHRF: A. Xenakis

- 28.** Program ΕΠΕΤ II - Subprogram 4, Action 4.1, ΠΕΝΕΔ 99ΕΔ98 (1999-2001) "**New materials based on hydrosoluble polymers as carriers of biologically active substances**". Budget: 57.000.000 Grd (NHRF 18.500.000 Grd) Coordinator: A. Xenakis Collaboration with the research groups of: Assoc.Prof. G.Staikos, Inst. Chem. Eng/FORTH, Patras 2. Dr. A. Malliaris Inst of Physical Chemistry NRC "Demokritos"
- 29.** Program ΕΠΕΤ II - Subprogram 4, Action 4.1, ΠΕΝΕΔ 99ΕΔ74 (1999-2001) "**Biotechnological applications of lipolytic enzymes for the synthesis of high added value products**" Contract with: NTUA. Budget: 52.000.000 Grd (NHRF 15.800.000 Grd) Coordinator NHRF: C.Cazianis Collaboration with the research groups of: 1. Assoc.Prof.D.Kekos, Biotechnology lab., Chem.Eng. dept. NTUA 2. Assis.Prof. J.Smonou, Organ.Chem. lab. Chemistry dept., Univ.of Crete.
- 30.** Program ΕΠΕΤ II - Subprogram 1, Action 2.3, Nutrition Program 97ΔΙΑΤΡΟ-29 (1999-2001) "**Study of the presence and bioavailability of phenolic antioxidants in foods of the Mediterranean diet**" Contract with: Univ. of Thessaloniki Budget: 95.000.000 Grd (NHRF 17.450.000 Grd.) Coordinator NHRF: A. Xenakis Collaboration with the research groups of: 1. ELAIS SA. Oleaginous Company 2. Prof.A.Kaffatos, Clinic of preventive medicine & nutrition, Medical School, Univ.of Crete 3. Prof. D. Boskou, Food Chem. & Technol. Lab., Univ. of Thessaloniki 4. Prof. I. Gerothanassis, Org. Chem & Biochem. Lab., Chemistry dept., Univ.of Ioannina
- 31.** Program ΕΠΕΤ II - Subprogram 2, Action 2.1, ΠΑΒΕ-99ΒΕ5 (1999-2001) "**Virgin olive oil: Characterization of the effect of pigments and tocopherols on the oxidative stability and development of a method for the estimation of the oxidative condition**", Contract with: ELAIS SA. Budget: 62.105.000 Grd (NHRF 8.200.000 Grd.) Coordinator NHRF: A. Xenakis
- 32.** Program ΕΠΕΤ II - Action 2.4 R & D Networks, Data Bases, (1998-2000) "**Enzymes in clinical diagnosis and therapy**", Coordinator: T.Sotiroudis. Budget: 26.000.000 Grd Collaboration with National Drug Organization and the Medical school of the Univ.of Athens
- 33.** Program ΕΠΕΤ II - Subprogram 2, Action 2.1, ΠΑΒΕ-97ΒΕ93 (1998-2000) "**New technology for transdermal drug delivery. Application of microemulsions and organogels**", Contract with Pharmathen Ltd. ΕΠΕ. Budget: 67.649.087 Grd. (NHRF 14.000.000 Grd.) Coordinator NHRF: A. Xenakis
- 34.** Program ΕΠΕΤ II - subprogram 2, Action 2.3. Liaison Offices of Universities and Research Centers. (1996-9) "**Development of a Liaison office at the NHRF**". Budget: 72.000.000 Grd. Coordinator NHRF: A. Xenakis 11. Program financed by Pharmathen Ltd. ΕΠΕ (1997) "Microemulsions for face cleansers" Budget: 1.000.000 Grd. Coordinator NHRF: A. Xenakis

- 35.** Program ΕΠΕΤ II - subprogram 1, ΠΕΝΕΔ -185 (1996-8) "**Study of the enzymatic activity of hydrolytic enzymes hosted in water in oil microemulsions**" Budget: 10.000.000 Grd. Coordinator NHRF: A. Xenakis
- 36.** Program ΕΠΕΤ II- subprogram 1, ΥΠΕΡ- 55 (1996-9) "**Development of a new enzymatic immunoassay for the production of clinical laboratory kits**". Budget: 13.500.000 Grd. Coordinator NHRF: A. Xenakis
- 37.** Program ΕΠΕΤ II, subprogram 1, ΕΚΒΑΝ-691, (1994-7): "**Greek Virgin Olive Oil: Origin Productio Technology & Quality**". Budget NHRF: 60.000.000 Grd. Coordinator NHRF: A. Xenakis. Collaboration with the research groups of: 1. ELAIS SA. Oleaginous Company 2. Dr.E.Chamalidis, Food Department, General State Lab. 3. Prof. D. Boskou, Food Chem. & Technol. Lab., Univ. of Thessaloniki 4. Prof. M. Komaitis, Dept of Agricultural Industries, Athens Agricultural Univ. 5. Dr.A. Koutsaftakis, Inst. of subtropics & olives, Chania, NAGREF.
- 38.** Program BIOTECH of the European Union (1994-6) (in collaboration with Prof. Kolisis):"**Structure-function lipase relationships in low water media**". Budget: 55.000 ECU. Collaboration with the research groups of 1. Prof.C.Cambillau, Lab. Cristallographie des Macromolecules Biolog., CNRS, Marseille, France. 2. Dr. M.R.Egmond, Unilever Research Laboratory, Vlaardingen, The Netherlands. 3. Prof. S.B.Petersen, SINTEF, MR-Center, Trondheim, Norway. 4. Prof. M.D.Legoy, Lab. de Génie Protéique, Université de La Rochelle, France. 5. Prof.P.Halling, Dept.Bioscience & Biotechnology, Univer.of Strathclyde, Glasgow, UK. 6. Prof. J.M.S.Cabral, Lab. de Engenharia Bioquimica, IST, Lisboa, Portugal.
- 40.** Program PLATON 1993. "**Enzymic studies in microemulsions. Structural aspects** " (16th Collaboration protocol). Budget: 2.000.000 Grd. Collaboration with the research groups of: 1. Prof.M.P.Pileni Structure and Activity on interfaces lab., Univ. Paris VI, France. 2. Dr C.Petit CEA Saclay, Paris, France
- 41.** Program PLATON 1992. "**Enzymic studies in microemulsions. Structural aspects**" (Contract N02001910092- 15th Collaboration protocol). Budget: 2.000.000Grd. Collaboration with the research groups: 1. Prof.M.P.Pileni Structure and Activity on interfaces lab., Univ. Paris VI, France. 2. Dr C.Petit CEA Saclay, Paris, France.
- 42.** Program BRIDGE of the European Community Commission (1991-94): "**New ways of Biotransformation in non-aqueous systems for the synthesis of pharmaceuticals. Application of supercritical gases, organic solvents, liquid membranes and microemulsions.**" (Contract N BIOT - CT90 - 0176 (TSTS)). Budget: 900.000 ECU. Collaboration with the research groups of: 1. Dr

T.Scheper, Inst. of Chemical Technology, Univ. Hannover, Germany. 2. Prof. A.Ballesteros, Biocatalysis lab. Univ. of Madrid, Spain. 3. Dr U.Menge, Enzymatic Technology lab, GBF, Braunschweig, Germany. 4. Dr D.Combes, Biochemical Engineering lab., INSA Toulouse, France.

43. Program SCIENCE of the European Community Comission (1988) (Contract No.SC1-0084). Collaboration with the research groups of: 1. Dr C.Tondre, Organic Physical Chemistry lab, LESOC, Univ. Nancy I, France 2. Dr J.C.Ravey, Colloidal Physical Chemistry lab, LESOC, Univ. Nancy I, France.

44. Biotechnology Action Program (BAP) of the European Community Commission (1986-89). (Contract No BAP 0051-GR). Budget: 12.500.000 Grd. Collaboration within the project Bioreactors with the research groups of: 1. Prof. M.Rossi, Organic & Biological Chemistry lab., Univ. of Napoli, Italy 2. Dr M.Legoy, Enzymatic Technology lab., Technol.Univ. of Compiegne, France 3. Prof. K.Schugerl, Inst. of Chemical Technology, Univ. Hannover, Germany. 4. Prof. A.Ballesteros, Biocatalysis lab. Univ. of Madrid, Spain