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**EDUCATION**

Doctorat d'Etat, Physical Chemistry, Université de Nancy I, France, 1985  
PhD (Doctorat) Molecular Chemistry I, Université de Nancy I, France, 1983  
D.E.A. (Masters) Industrial Engineering, Ecole National Polytechnique de Lorraine, 1983  
D.E.A. (Masters) Molecular Chemistry I, Université de Nancy I, France, 1981  
Chemistry Degree, University of Athens, 1978

**SCIENTIFIC INTERESTS - ACTIVITIES**

Nano-biotechnology: enzymatic Biotransformations in non conventional media  
Physical Chemistry of microemulsion and surfactant dispersed systems  
Spectroscopy EPR, fluorescence – Structural studies  
Micellar enzymology

**PUBLICATIONS**

**RESEARCH PROJECTS**

**COLLABORATIONS WITH INDUSTRIES**

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## A. PUBLICATIONS

1. C.Tondre & A.Xenakis (1982) "Transport of solubilized pyrene by w/o microemulsions", *Colloid Polym.Sci.*, **260**, 232-3.
2. A.Xenakis & C.Tondre (1983) "Oil in water microemulsion globules as carriers of lipophilic substances across liquid membranes", *J.Phys.Chem.*, **87**, 4737-43.
3. A.Xenakis & C.Tondre (1983) "A simple method for determining the anionic surfactant content in microemulsion phases", *J.Colloid Interface Sci.*, **95**, 589-91.
4. C.Tondre & A.Xenakis (1984) "Transport of solubilized substances by microemulsion droplets", "Surfactants in Solution" Ed.K.Mittal & B.Lindman, **3**, 1881-96, Plenum Pub.Co., N.Y.
5. A.Xenakis & M.Karayannis (1984) "Kinetic assay of sulfonamides by use of the Griess reaction and a stopped-flow procedure", *Anal.Chim.Acta*, **159**, 343-7.
6. C.Tondre & A.Xenakis (1984) "Use of microemulsions as liquid membranes: improved kinetics of solute transfer at interfaces", *Faraday Disc.Chem.Soc.*, **77**, 115-26.
7. C.Tondre & A.Xenakis (1986) "Microemulsion droplets as mobile carriers for ion transport through liquid-liquid interfaces. Coupled action with lipophilic crown-ether carriers", *J. Electrochem. Soc.*, **133**, C134.
8. C.Tondre, A.Xenakis, A.Robert & G.Serratrice (1986) "Evidence of structural changes in reverse microemulsion systems formulated with nonionic surfactants", *Surfactants in Solution*, Ed.K. Mittal & P.Bothorel, **6**, 1345-55, Plenum Pub. Co., N.Y.
9. C.Tondre, A.Xenakis & M.Boumezioud (1986) "Transport of metallic ions by (microemulsion plus complexing agent) systems. Kinetics of complexation in microemulsion phases". *L'Actualité Chimique*, sup. N 10, 78-9.
10. A.Xenakis & C.Tondre (1987) "Transport of alkali metal picrate ions by microemulsions used as liquid membranes: influence of the nature of the surfactant and co-surfactant", *J.Colloid Interface Sci.*, **117**, 442-7.
11. A.Xenakis, C.Selve & C.Tondre (1987) "Transport of alkali-metal ions by a lipophilic crown-ether anchored in a w/o microemulsion droplet", *Talanta*, **34**, 509-11.
12. C.Cazianis, A.Xenakis & A.Evangelopoulos (1987) "Spin-label studies of glycogen phosphorylase hosted in microemulsion droplets" *Biochem.Biophys.Res.Comm.* **148**, 1151-7.
13. A.Xenakis, T.Valis & F.Kolisis (1988) "Bioconversion of hydrophilic and hydrophobic compounds by enzyme systems I". "Biotechnology Action Program", Ed. E.Magnien, Commission of the European Communities, **2**, 303-7.
14. A.Xenakis, T.Valis, G.Kondelia & F.Kolisis (1988) "Bioconversion of hydrophilic and hydrophobic compounds by enzyme systems II". "Biotechnology Action Program", Ed. E.Magnien, Commission of the European Communities, **2**, 445-50.
15. A.Xenakis & C.T.Cazianis (1988) "Solubilization of Phosphorylase into microemulsion droplets. An ESR study. *Progr.Colloid Polym.Sci.*, **76**, 159-64.
16. A.Xenakis, T.P.Valis & F.Kolisis (1989) "Use of microemulsion systems as media in heterogeneous enzymic catalysis". *Progr.Colloid Polym. Sci.*, **79**, 88-93.
17. C.T.Cazianis & A.Xenakis (1989) "Different spin probe positions related to structural changes of nonionic microemulsions". *Progr.Colloid Polym.Sci.*, **79**, 214-217.
18. A.Xenakis (1989) "Enzymatic transesterification of fats and oils in microemulsions". *Proc. 2d Panhellenic congress of Food Science & Technology*, 343-351, Athens.
19. A.Xenakis, T.Valis & F.Kolisis (1990) "Reverse micellar enzymology. Lipase catalyzed hydrolysis of triglycerides and synthesis of specific esters". *Biochem.Biophys.Newslett.*, **30**, 23-25
20. A.Xenakis (1990) "Microemulsions I. Brief presentation". *Rev.Clin. Pharmacol. Pharmacokin.*, **9**, 15-24.
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22. A.Xenakis, C.T.Cazianis & A. Malliaris (1990) "Nonionic microemulsions as model of biosystems studied by probing techniques". *Progr.Colloid Polym.Sci.*, **81**, 295.
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26. T.G.Sotiroudis & A.Xenakis (1990) "PEST sequences present in phosphorylase kinase". *Biochem.Int.*, **21**, 941-947.
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31. T.Valis, A.Xenakis & F.N.Kolisis (1992) "Comparative studies of Lipase from *Rhizopus delemar* in various microemulsion systems" *Biocatalysis*, 6, 267-279.
32. A.Xenakis, C.Cazianis & A.Malliaris (1992) "Study of the transition between different structures of some nonionic microemulsion systems". *Colloids Surf.* 62, 315-9.
33. G.Nika, C.M.Paleos, P.Dais, A.Xenakis & A.Malliaris (1992) "Aggregational behavior of polymeric micelles of methylacrylate functionalized quaternary ammonium salts". *Progr. Colloid Polym.Sci.*, 89, 122-124.
34. H.Stamatis, A.Xenakis, F.N.Kolisis, H.Sztajer & U.Menge (1992) "Studies on the specificity of *Penicillium simplicissimum* lipase catalyzed esterification reactions in microemulsions", in *Biocatalysis in Non-Conventional Media*, J.Tramper et al.(eds) Elsevier, Amsterdam, 733-8.
35. V.Papadimitriou, A.Xenakis & P.Lianos (1993) "Electric percolation of enzyme containing microemulsions", *Langmuir*, 9, 912-915.
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50. S.Avraniotis & A.Xenakis (1995) "Lecithin based w/o microemulsion systems. A non toxical micro-environment for enzyme studies". *Biochem.Biophys.Newslett.*, 38, 132-3.
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57. S. Avramiotis, H. Stamatis, F.N. Kolisis & A. Xenakis. (1997) ”Pseudomonas cepacia lipase localization in lecithin and AOT w/o microemulsions. A fluorescence energy transfer study” *Progr.Colloid Polym.Sci.* 105, 180-183.
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## **B. PATENTS**

1. E. Προτόπαπα, A. Xenakis, Σ. Αβραμιώτης & Κ.Ε. Σέκερης (1996) "Μικρογαλακτώματα λεκιθίνης περιέχοντα πρωτεολυτικά ένζυμα α-γλυκοθριψίνη ή θρυψίνη και μέθοδος μόνιμης ενζυμικής αποτρίχωσης" OBI No 1002706/1997
2. Xenakis A., Sotiroidis T.G. & Karapitta C. (2000) "Development of a homogenous immunoenzymatic method for the production of clinical laboratory kits for the determination of thyroxine and triiodothyronine in human sera, using glycogen phosphorylase b conjugated with polyiodothyronines. Greek Patent Office. OBI 20000100255
3. Protopapa, E.; Xenakis, A.; Avramiotis, S., Sekeris, C. (2001) "Lecithin-based microemulsions containing proteolytic enzymes and method for permanent enzymic depilation" United States Patent, 6,203,791
4. Protopapa, E.; Xenakis, A.; Avramiotis, S., Sekeris, C. (2003) "Lecithin-based microemulsions containing proteolytic enzymes and method for permanent enzymic depilation". European Patent 0955991/05-03-2003, PCT Int. Appl. WO 9744005 A1. Designated states: W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG.

## **Γ. DOCTORAL THESES**

1. A. Xenakis (1983) "Transport de solutés par des microémulsions utilisées comme membranes liquides". Διδακτορική Διατριβή, Παν/μιο Νανσό Ι.
2. A. Xenakis (1985) "Utilisation de microémulsions comme membranes liquides. Cinétiques de transport de solutés par la phase dispersée et application à l'extraction liquide- liquide". Thèse de Docteur ès Sciences, Παν/μιο Νανσό Ι.

## **Α. MASTER THESES**

1. A. Xenakis (1981) "Propriétés de transport des microémulsions", D.E.A. Μοριακής Χημείας, Παν/μιο Νανσό Ι.
2. A. Xenakis (1983) « L'innovation produit dans le secteur agroalimentaire. Application aux produits alimentaires nouveaux exposés au 10<sup>ème</sup> salon international de l' alimentation ». D.E.A. Βιομηχανικής Διαχείρισης, Εθνικού Πολυτεχνείου Λωρραίνης INPL.

## RESEARCH PROJECTS

1. 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 Compiègne, France
  3. Prof. K.Schugerl, Inst. of Chemical Technology, Univ. Hannover, Germany.
  4. Prof. A.Ballesteros, Biocatalysis lab. Univ. of Madrid, Spain.
2. Program SCIENCE of the European Community Commission (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.
3. 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.
4. Program PLATON 1992. "Enzymic studies in microemulsions. Structural aspects"(Contract N 02001910092- 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, Παρίσι, France.
5. 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.
6. 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 Bioquímica, IST, Lisboa, Portugal.
7. 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.
8. Program ΕΠΕΤ II- subprogram 1, ΥΠΕΠ- 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
9. 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
10. 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
12. 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

13. Program ΕΠΙΕΤ II - Action 2.4 R & D Networks, Data Bases, (1998-2000) “Enzymes in clinical diagnosis and therapy”, Coordinator: T.Sotiroidis. Budget: 26.000.000 Grd Collaboration with National Drug Organization and the Medical school of the Univ.of Athens
14. Program ΕΠΙΕΤ II - Subprogram 2, Action 2.1, ΠΙΑΒΕ-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
15. Program ΕΠΙΕΤ 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
16. Program ΕΠΙΕΤ II - Subprogram 4, Action 4.1, ΠΙΕΝΕΔ 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.
17. Program ΕΠΙΕΤ II - Subprogram 4, Action 4.1, ΠΙΕΝΕΔ 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:
  1. Assoc.Prof. G.Staikos, Inst.Chem.Eng/FORTH, Patras
  2. Dr. A.Malliaris Inst of Physical Chemistry NRC “Demokritos”
18. Program ΤΕΙ 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
19. 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.
20. Program ΕΠΙΑΝ ΠΙΒΕΤ 2000 00ΒΕ58 (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.
21. Program ΕΠΙΑΝ “Supporting research groups for exploiting research results. Finding and valorizing results through spin off company creation. PhaseΑ’. Preparation of the investment” (2002-3) Κωδ. 01 ΠΡΑΞΕ 18. Budget: 44.000,00 €
22. Program ΙΚΥΔΑ (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 €
23. Program «ΣΥΝΕΡΓΑΣΙΑ» of the Dir.1334/02 – ΕΛΑΙΟΥΡΓΙΚΙ - 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. ΕΛΑΙΟΥΡΓΙΚΙ 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
24. Program «CRETE - ΣΥΝΕΡΓΑΣΙΑ» 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
25. Program ΕΠΙΑΝ - 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
26. Program ΠΙΒΕΤ 2005: “Production of high added value products by the biotechnological application of lipases as biocatalysts” Contractor: ΝΕΟΚΕΜ SA Budget: 35.000,00 €. Coordinator NHRF: A. Xenakis

27. Program EPIAN 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
28. Program EPIAN 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 groups of: Prof. Ep. Leondidis, Chemistry Dept. University of Cyprus, Nicosia
29. MED Programme 2009-2011 “Mediterranean Transnational Technology Transfer - MET3” Budget: 360.000 €
30. 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 €

*Services to Industries*

Total income from research services: 60.000 €

## COLLABORATIONS WITH INDUSTRIES

### *Collaboration with Food Industries*

#### ELAIS SA.

- Common Program EIET II EKBAN 691" Greek Virgin Olive Oil: Origin Production Technology & Quality "
- Submission YIIEP 95 "Enzymatic biotransformation of free fatty acids to oligoglycerids"
- Common Program IIABE 99 " 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 "
- Nutrition Program. " Study of the presence and bio-availability of phenolic antioxidants in foods of the Mediterranean diet "
- Submission IIENEΔ 2003 "Virgin Olive Oil: stability and minor components. Application to the production of improved quality products".
- Submission IIIEI Attica 2005 " Relation of Mediterranean diet and its constituents with cardiovascular disease risk factors"

#### ΓΙΩΤΗΣ Α.Ε.

- Submission EIET II EKBAN "Effect of high pressure on biological substances and application to the food industry"

#### UNILEVER

- Common Program BIOTECH of the EU (1994-1996) "Structure-function lipase relationships in low water media".

#### ELAIOURGIKI

- Common Program "Determination of the most significant and usual quality problems encountered in greek olive oils. Evaluation and therapeutic actions"

#### HARLAFTIS

- Submission IIIEI Attica 2005 " Relation of Mediterranean diet and its constituents with cardiovascular disease risk factors"

#### PEZA UNION

- Common Program "Study of parameters affecting the quality of greek virgin olive oils. Degree of maturity and natural antioxidants content"
- Submission FP7 "Capacities program for SMEs" "Nanostructure of veiled virgin olive Oil – Structure and stability studies of its Colloidal Emulsions"

#### SITIA UNION

- Common Program "Study of parameters affecting the quality of greek virgin olive oils. Degree of maturity and natural antioxidants content"

#### MIRAMPELO UNION

- Common Program "Study of parameters affecting the quality of greek virgin olive oils. Degree of maturity and natural antioxidants content"

#### MILOPOTAMOS UNION

- Common Program "Study of parameters affecting the quality of greek virgin olive oils. Degree of maturity and natural antioxidants content"

#### OLEASTRO Ltd, Cyprus

- Submission FP7 "Capacities program for SMEs" "Nanostructure of veiled virgin olive Oil – Structure and stability studies of its Colloidal Emulsions"

### *Collaboration with Chemical Industries*

#### MERCK

- Common 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

VIORYL S.A.

- Submission ΠΕΠ Attica 2005 “ : «New Technologies for combating the urban green enemies»

NEOKEM S.A.

- Common Program ΠABET 2005: «High added value products through the biotechnological application of lipases as biocatalysts»

*Collaboration with Pharmaceutical and Cosmetics Industries*

MEDICON AE

- Common Program ΥΠΕΡ “Development of a new enzymatic immunoassay for the production of clinical laboratory kits”
- Submission ΕΠΕΤ II ΕΚΒΑΝ- 97

PHARMATHEN SA.

- Licensing of a Patent
- Common Program for the development of cosmetics
- Common Program ΠABE “New technology for transdermal drug delivery. Application of microemulsions and organogels”
- Common Program ΠABET “New systems for delivery of drugs and biologically active substances with repetitive and controlled release”

RESCO SA

- Submission ΠΕΝΕΔ 2003 “Development of nanodispersions of biologically or pharmaceutically active substances with antioxidant or anticancerogenic activity”

PDT Cosmetici Srl., Italy

- Submission FP7 “Capacities program for SMEs” “Nanostructure of veiled virgin olive Oil – Structure and stability studies of its Colloidal Emulsions”