Network members

- Karamanos Nikos (coordinator) – Professor, Biochemistry, Department of Chemistry, collaborating faculty member of FORTH
- Aletras Alexios - Assoc. Professor, Biochemistry, Department of Chemistry
- Bokias Georgios – Assist. Professor , Polymer Science, Department of Chemistry
- Kallitsis Joannis – Professor, Polymer Science, Department of Chemistry and collaborating faculty member of FORTH
- Theocharis Achilleas – Assist. Professor, Biochemistry, Department of Chemistry
- Vynios Demitrios – Professor, Biochemistry, Department of Chemistry
- Galiotis Costas - Director of FORTH/ ICE-HT, Patras, Greece and Professor - Department of Materials Science
- Kostopoulos Basilis - Professor, Director of Applied Mechanics & Vibrations Lab. – Department of Mechanical Engineering and Aeronautics
- Mavrilas Dimosthenis – Assist. Professor , Biomechanics & Biomedical Engineering, Department of Mechanical Engineering & Aeronautics
- Panteliou Sofia – Assoc. Professor - Department of Mechanical Engineering & Aeronautics
- Tsitsilianis Constantinos – Professor, Polymer Science, Department of Chemical Engineering and collaborating faculty member of FORTH
- Gatzounis Georgios, Assist. Professor, Neurosurgery, Department of Medicine
- Georgakopoulos Konstantinos – Assoc. Professor, Ophthalmology, Department of Medicine
- Kalofonos Haralabos - Professor, Director of the Division of Oncology and Clinical Oncology Laboratory – Department of Medicine
- Makatsoris Thomas – Assist. Professor, Clinical Oncology, Department of Medicine
- Moschonas Nikos – Professor, Department of Medicine (associate of the network)
- Mouzaki Athanasia - . Professor, Immunohematology Laboratory, Department of Medicine
- Panagiotopoulos Elias – Professor, Orthopedic Surgery, Department of Medicine
- Antimisiaris Sophia – Professor, Department of Pharmacy, collaborating faculty member of FORTH
- Papadimitriou Evangelia – Assoc. Professor, Molecular Pharmacology, Department of Pharmacy

For application to join the research network please contact Nikos Karamanos
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Πανεπιστήμιο Πατρών – University of Patras

Ερευνητικό δίκτυο Βιοϊατρικών και Βιοτεχνολογικών Εφαρμογών

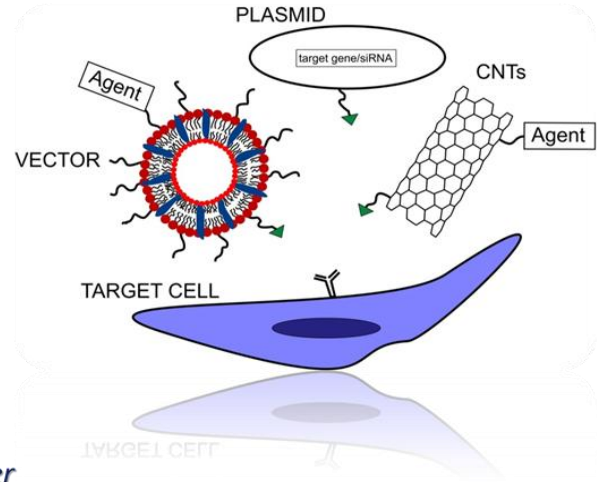
Biomedical and Biotechnological Applications Research Network

B I O T A R G E T I N G

1st Scientific Meeting of Research Network

Biomedical and Biotechnological Applications:
Pharmacotargeting of diseases and applications of biocompatible materials in medicine

Conference Center, University of Patras
Room I-12 - Friday, November 5 2010



Invited speaker
Professor Mario Leclerc *(University of Laval, Quebec, Canada)*
Label-free optimal detection of DNA with conjugated polymers

The Network is a result of the collaboration of the research groups and researchers from the Departments of : Chemistry, Material Science, Chemical Engineering, Mechanical Engineering & Aeronautics, Medicine and Pharmacy of University of Patras

Web site: http://www.biotargeting.upatras.gr/

TIME	TITLE	SPEAKER/S
8:45	**Registrations**	
Chair: N. Karamanos, S. Antimissiaris		
9:00	**Opening**	University of Patras **G. Panayiotakis,** Rector **D. Kalpaxis**, Vice-Rector **Ch. Kordoulis,** Dean of Natural Science School **V. Kyriazopoulou,** Dean of Health Science School **N. Anyfantis,** Dean of Polytechnic School
9:15	**Structure and targets of the BIOTARGETING research network**	**N. Karamanos,** Network coordinator, Department of Chemistry, University of Patras, Patras
9:30	**Label-free optimal detection of DNA with conjugated polymers**	**Professor Mario Leclerc**, University of Laval, Quebec, Canada
10:15	**Nanosystems for delivery/targeting of drugs**	**S. Antimissiaris**, Pharmaceutical Technology Laboratory, Department of Pharmacy, University of Patras
10:30	**Sustained drug release through reversible hydrogel/liposome formulations**	**C. Tsitsilianis**, , Department of Chemical Engineering, University of Patras & ICE/HT-FORTH, Patras
10:45	**Need for biological treatments in paraplegic patients**	**E. Panagiotopoulos, A. Athanassopoulos**, Department of Rehabilitation for Spinal Cord Injuries, University of Patras
11:00	**Coffee Break and Poster Session**	
Chair: H. P. Kalofonos, E. Papadimitriou		
11:45	**Research Activities for Targeted Therapies in Cancer**	**H. P. Kalofonos**, Oncology Clinic, Medical Department, University of Patras
12:00	**Target of Cell Death Pathways, Receptors and Intracellular Kinases**	**E. Giannopoulou**, Clinical Oncology Laboratory, Medical Department, University of Patras
12:15	**Novel mechanisms implicated in the pathogenesis of bone and soft tissue sarcomas**	**D. Papachristou,** University of Pittsburgh, School of Medicine, Pittsburgh, PA, USA and Medical Department, University of Patras
12:30	**Role of pleiotrophin and its receptor RPTPβ/ζ in angiogenesis and tumor growth**	**E. Papadimitriou**, Laboratory of Molecular Pharmacology, Department of Pharmacy, University of Patras
12:45	**Light Lunch and Poster Session**	
Chair: J. Kallitsis, S. Panteliou		
14:30	**Polymeric and nanostructured materials for biological applications**	**J. Kallitsis, G. Bokias,** Department of Chemistry, University of Patras
14:45	**Animal model for cervical spondylotic myelopathy using organic polymer to investigate pathogenic mechanisms of the disease**	**G. Gatzounis,** Department of Medicine, University of Patras
15:00	**Mechanical deformation of graphene and graphene/ polymer nanocomposites**	**C. Galiotis**, ICE/HT-FORTH, Patras
15:15	**Engineering Practices in Support of Medicine**	**S. Panteliou**, Machine Design Laboratory, Department of Mechanical Engineering and Aeronautics, University of Patras
15:30	**Cell-biomaterial interactions: Towards understanding biocompatibility issues in tissue engineering**	**G. Athanassiou,** Laboratory of Biomechanics and Biomedical Engineering, Department of Mechanical Engineering and Aeronautics, University of Patras
15:45	**Extracellular matrix deterioration: Lessons from laryngeal and colorectal cancer**	**D. Vynios**, Laboratory of Biochemistry, Department of Chemistry, University of Patras
16:00	**End of Meeting - Concluding Remarks**	

Poster Presentations

P01

Quinoline-labelled Water-soluble Copolymers: Structure control of the pH-responsive optical properties in aqueous solution

I. Thivaios, S. Kourkouli, A. Stefopoulos, G. Bokias, J. K. Kallitsis
Department of Chemistry, University of Patras, GR-26504 Patras, Greece

P02

Application of Quinoline-labelled Water-soluble Polymers for the Investigation of the Polyelectrolyte/Surfactant Complexation in Aqueous Solution".

I. Thivaios, G. Bokias
Department of Chemistry, University of Patras, GR-26504 Patras, Greece

P03

Implication of epidermal growth factor receptor activation in metalloproteinases expression, growth and migration of human colon cancer cells

Ch. Gialeli[1], D. Kletsas[2] and N. K. Karamanos[1]
[1]Laboratory of Biochemistry, Department of Chemistry, University of Patras, 26110 Patras, Greece;
[2]Laboratory of Cell Proliferation and Ageing, Institute of Biology, National Center of Scientific Research "Demokritos", Athens, Greece;

P04

Comparison of fluorophore-assisted carbohydrate electrophoresis, blyscan assay and capillary electrophoresis in the analysis of chrondroitin sulfate

M.-I. Ellina, V. Zafeiropoulou, A.P. Asimakopoulou, Ch. Gialeli, C. Malavaki, N. K. Karamanos
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P05

Separation of different mers of hyaluroman by capillary zone electrophoresis

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P06

Inhibition of cell proliferation, invasion and migration of breast cancer cells and pre-activation of pre-osteoclasts by zoledronate is related to its effects on syndecan-1, metalloproteinases and integrins

N. K. Karamanos[1], P. G. Dedes[1], A. I. Tsonis[1], Ch. Gialeli[1], D. Kletsas[2]
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P07

Estradiol as stimulator of suyndecan-4 gene expression in human breast and colon cancer cells

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P08

Increased expression of matrix metalloporoteinase-9 and of urokinase plasminogen activator in testicular tumors

E. Milia-Argeiti [1], E. Huet [2], B. Vallé [2], V.T. Labropoulou [3], S. Menashi [2], AD Theocharis [1]
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[3] Division of Oncology, School of Medicine, University of Patras, Greece

P09

EMMPRIN/C147 levels in testicular germ tumor cellsin culture do not correlate with their MMP expression

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P10

Serglycin interacts with C1q subunit of the first complement component and inhibits the classical pathway

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[4] Institute of cancer research and molecular medicine, Norwegian University of Science and Technology, Trondheim, Norway
[5] Depat. Of Experimental Medicinal Science, Division of Cell and Matrix Biology, BMC, Lund University, Lund, Sweden

P11

The chondroitin/dermatan modifying enzymes in cancer: Expressional and epigenetic studies

D.Kalathas [1], I.E Triantaphyllidou.[1], D .Bounias [2], D. Kyriakopoulou [2], M. Stavropoulos [2], P. Goumas [3], G. Tsiropoulos [3], T. Papadas, N. Mastronikolis [3], D.A. Theocharis [4], N. Papageorgakopoulou [1], D.H Vynios.[1]
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P12

Versican and Decorin in Colorectal Carcinoma

D. Kalathas [1], D. Bounias [2], D. Kyriakopoulou [2], M. Stavropoulos [2], D.A. Theocharis [3], N. Papageorgakopoulou [1], D.H. Vynios[1]
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P13

Presence of hyaluronidase isoforms in nasal polyps

I. E. Triantaphyllidou[1], E. Tserbini[1], A. Hatziri[1], S. Athanassiou[1], T. Panogeorgou[2], H. Bouga[1], N.S. Mastronikolis[2], S. Naxakis[2], A. J. Aletras[1], P. D. Goumas[2], D. H. Vynios[1]
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P14

Hyaluronan synthases and CD44 receptor in colorectal cancer

E. Bouga[1], D. H. Vynios[1], D. Bounias[2], D. Kyriakopoulou[2], N. Papageorgakopoulou[1], D. A. Theocharis[3], M. Stavropoulos[2]
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P15

Glycosaminoglycan metabolic enzymes in cancer

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P16

The cAMP and TGF-β1 pathways suppress the IL-1β and TNF-α-induced production of matrix metalloproteinase-1 from nasal polyps fibroblasts, acting on the NO and PKC pathways

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P17

Proteasome inhibitors enhance the expression of proteasome subunits in nasal polyps fibroblasts

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P18

Study of proteasome implication in TGF-β1 and IGF-I effects on the production of IL-6, TIMP-1 and Type-I collagen by nasal polyps fibroblasts

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P19

Proteasome inhibitors enhance the expression of matrix metalloproteinase- 1 and -3 in nasal polyps fibroblasts via reactive oxygen species and ap-1 activation

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P20

Macrophage migration inhibitory factor is produced from nasal polyps fibroblasts by dexamethasone and attenuates the steroid-induced inhibition of IL-6 and

TIMP-1 release

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P21

Fabrication and characterization of polymer nanocomposites based on carbon nanotube films

G. Trakakis[1], D. Tasis[2], K.Papagelis[2] J. Parthenios[1] and C.Galiotis[1,2]

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P22

Nanostructured linear and star block copolymers and terpolymers based on polystyrene under tension and compression: Tailoring of the molecular parameters to mechanical behaviour

G. Linardatos[1], G. Tsoukleri[2,4], J. Parthenios[2,4], O. Montiselli[5], S. Russo[5], C. Galiotis[2,3] and C. Tsitsilianis[1,2]

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P23

Novel nanocomposites reinforced by verticaly aligned carbon nanotubes

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P24

A smart intramedullary leg lengthening device (nail) using Shape Memory Alloy torsional actuators

S. Tsantzalis, E. Panagiotopoulos and V. Kostopoulos

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P25

Curcumine-decorated nanosized liposomes : preparation by click chemistry and stability

S. Mourtas[a], A. Niarakis[a], C. Zona[b], D. Aurilia[b], B. La Ferla[b], F. Nicotra[b], S. G. Antimisiaris[a,c]

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P26

Iron nanoxide encapsulating nanosized liposomes: preparation and stability

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P27

Targeting the blood-brain barrier (bbb) with nanosized immunoliposomes. In vitro studies on a bbb cell culture model

E. Markoutsa[1], G. Pampalakis[1], A. Niarakis[1], I. A. Romero[3], B. Weksler[3], P-O Couraud[3], S G. Antimisiaris[1,2];

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P28

Effect of all-trans-retinoic acid and its conjugate with spermine on human endothelial and prostate cancer cell growth in vitro and angiogenesis in vivo

D. Vourtsis[1], E. Sadikoglou[1], O. Theodorakopoulou[1],C. Lampropoulou[1], G. Magoulas[2], D. Drainas[3], D. Papaioannou[2] and E. Papadimitriou[1]

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P29

Role of pleiotrophin in human prostate cancer cell growth in vivo

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P30

Cyclin-dependent kinase 5 interacts with RPTPβ/ζ and mediates pleiotrophin-induced endothelial cell migration

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P31

Cell surface expression of nucleolin is maintained by $\alpha_v\beta_3$ integrin and is required for pleiotrophin-induced cell migration

M. Koutsioumpa[1], C.Mikelis[1], N. Kieffer[2], S.Skandalis[3], U.Hellman[3], C. Petrou[4], V.Magafa[4], P. Cordopatis[4], and E. Papadimitriou[1]

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P32

pH Responsive Reversible Hydrogel/Liposome Composites For Tunning Drug Release

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P33

Self Assembly and Morphology of pH-Sensitive Heteroarm Star Block Terpolymers in Aqueous Media"

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