

## Μέλη Δικτύου

- 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
- Mavrlas Dimosthenis – Assist. Professor , Biomechanics & Biomedical Engineering, Department of Mechanical Engineering & Aeronautics
- Pantelou 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

Για αίτηση συμμετοχής στο ερευνητικό δίκτυο παρακαλώ επικοινωνήστε με τον Νίκο Καραμάνο

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Πανεπιστήμιο Πατρών – University of Patras

Ερευνητικό δίκτυο Βιοϊατρικών και Βιοτεχνολογικών Εφαρμογών  
Biomedical and Biotechnological Applications Research Network

B

1<sup>η</sup> Επιστημονική Ημερίδα Δικτύου

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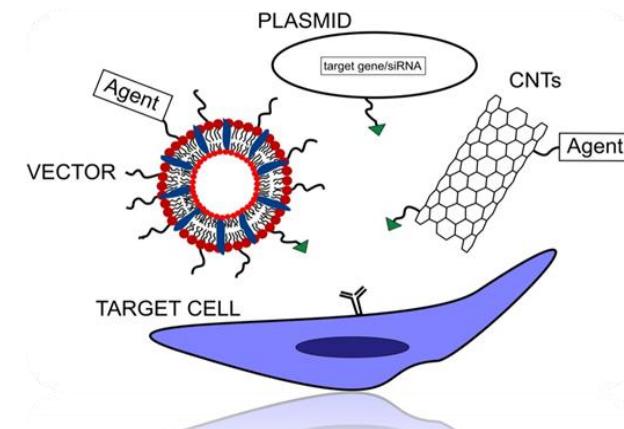
Βιοϊατρικές και Βιοτεχνολογικές Εφαρμογές με έμφαση στη φαρμακοστόχευση ασθενειών και τις εφαρμογές βιοσυμβατών υλικών στην Ιατρική

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Συνεδριακό Κέντρο Πανεπιστημίου Πατρών  
Αίθουσα Ι-12, Παρασκευή 5 Νοεμβρίου 2010

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Προσκεκλημένος ομιλητής

Καθηγητής Mario Leclerc (University of Laval, Quebec, Canada)

Label-free optimal detection of DNA with conjugated polymers

Στο δίκτυο συμμετέχουν μέλη ΔΕΠ από τα Τμήματα Χημείας, Επιστήμης των Υλικών, Χημικών Μηχανικών, Μηχανολόγων Μηχανικών και Αεροναυπηγών, Ιατρικής και Φαρμακευτικής

Ιστοσελίδα: <http://www.biotargeting.upatras.gr/>

ΩΡΑ	ΘΕΜΑ	ΟΜΙΛΗΤΗΣ/ΕΣ
8:45	Εγγραφές	
<b>Προεδρείο: N. Καραμάνος, Σ. Αντιμησιάρη</b>		
9:00	Χαιρετισμοί	Πανεπιστήμιο Πατρών Γ. Παναγιωτάκης, Πρύτανης Δ. Καλπαξής, Αντιπρύτανης Χ. Κορδούλης, Κοσμήτορας Σχολής Θετικών Επιστημών Β. Κυριαζοπούλου, Κοσμήτορας Σχολής Επιστημών Υγείας Ν. Ανυφαντής, Κοσμήτορας Πολυτεχνικής Σχολής
9:15	Δομή και Στόχοι του ερευνητικού δικτύου	N. Καραμάνος, Εργαστήριο Βιοχημείας, Τμήμα Χημείας, Πανεπιστήμιο Πατρών, Συντονιστής του Δικτύου
9:30	Label-free optimal detection of DNA with conjugated polymers	Mario Leclerc, University of Laval, Quebec, Canada
10:15	Νανοσυστήματα για χορήγηση/στόχευση φαρμάκων	Σ. Αντιμησιάρη, Εργαστήριο Φαρμακευτικής Τεχνολογίας, Τμήμα Φαρμακευτικής, Πανεπιστήμιο Πατρών
10:30	Παρατεταμένη Απελευθέρωση Φαρμάκου μέσω Σχηματισμών Αντιστρεπτού Υδροπηκτώματος/Λιποσώματος	Κωνσταντίνος Τσιτσιλιάνης, Τμήμα Χημικών Μηχανικών, Πανεπιστήμιο Πατρών & ITE-EΙΧΗΜΥΘ, Πάτρα
10:45	Η αναγκαιότητα για βιολογικές θεραπείες στην παραπληγία	Η. Παναγιωτόπουλος, Α.Αθανασόπουλος, Κλινική Αποκατάστασης Κακώσεων του Νώπιαίου Μισελού, Πανεπιστήμιο Πατρών
11:00	Καφές και Περιήγηση στις Αναρτημένες Ανακοινώσεις (Posters)	
<b>Προεδρείο: X. Καλόφωνος, E. Παπαδημητρίου</b>		
11:45	Ερευνητικές Δραστηριότητες για Στοχευμένες Θεραπείες στον καρκίνο	X. Π. Καλόφωνος, Ογκολογική Κλινική, Τμήμα Ιατρικής, Πανεπιστήμιο Πατρών
12:00	Στόχευση υποδοχέων, ενδοκυττάριων μορίων και μηχανισμών κυτταρικού θανάτου	E. Γιαννοπούλου, Εργαστήριο Κλινικής Ογκολογίας, Τμήμα Ιατρικής, Πανεπιστήμιο Πατρών

12:15	Καινοτόμοι μηχανισμοί που ενέχονται στην παθογένεια σαρκωμάτων, οστών και μαλακών μορίων	Δ. Παπαχρήστου, University of Pittsburgh, School of Medicine, Pittsburgh, PA, USA, και Τμήμα Ιατρικής, Πανεπιστήμιο Πατρών
12:30	Ρόλος της πλειοτροπίνης και του υποδοχέα της RPTPβ/ζ στη διαδικασία της αγγειογένεσης και της καρκινικής ανάπτυξης.	Ε. Παπαδημητρίου, Εργαστήριο Μοριακής Φαρμακολογίας, Τμήμα Φαρμακευτικής, Πανεπιστήμιο Πατρών
12:45	Ελαφρύ Γεύμα και Περιήγηση στις Αναρτημένες Ανακοινώσεις (Posters)	
14:30	Πολυμερή και Νανοϋλικά για βιολογικές εφαρμογές	I. Καλλίσης, Γ. Μπόκιας, Τμήμα Χημείας, Πανεπιστήμιο Πατρών
14:45	Ζωϊκό μοντέλο πρόκλησης αυχενικής σπονδυλωτικής μυελοπάθειας με την χρήση οργανικού πολυμερούς προς διερέυνηση παθογενετικών μηχανισμών της νόσου	Γ. Γκατζούνης, Νευροχειρουργική, Τμήμα Ιατρικής, Πανεπιστήμιο Πατρών
15:00	Μηχανική Παραμόρφωση γραφενίου και γραφενίου/πολυμερών νανοσυσθέτων	Κ. Γαλιώτης, ITE-EΙΧΗΜΥΘ, Πάτρα
15:15	Η Τεχνική στην Υπηρεσία της Ιατρικής	Σ. Παντελιού, Εργαστήριο Στοιχείων Μηχανών, Τμήμα Μηχανολόγων και Αεροναυπηγών Μηχανικών, Πανεπιστήμιο Πατρών
15:30	Αλληλεπιδράσεις Κυττάρων Βιοϋλικών: Προσέγγιση Κατανόηση της Βιοσυμβατότητας στην Ιστοτεχνολογία	Γ. Αθανασίου, Εργαστήριο Εμβιομηχανικής και Βιοϊατρικής Τεχνολογίας, Τμήμα Μηχανολόγων και Αεροναυπηγών Μηχανικών, Πανεπιστήμιο Πατρών
15:45	Υποβάθμιση του Εξωκυττάριου Χώρου: Δεδομένα από τη Μελέτη του Λαρυγγικού και του Ορθοκολικού Καρκίνου	Δ. Βύνιος, Εργαστήριο Βιοχημείας, Τμήμα Χημείας, Πανεπιστήμιο Πατρών
16:00	Κλείσιμο Ημερίδας - Συμπεράσματα	

## **Αναρτημένες Ανακοινώσεις (Posters)**

P01

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

I. Thivaios, S. Kourkouli, A. Stefanopoulos, G. Bokias, J. K. Kallitisis  
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<sup>1</sup>, D. Kletsas<sup>2</sup> and N. K. Karamanos<sup>1</sup>  
<sup>1</sup>Laboratory of Biochemistry, Department of Chemistry, University of Patras, 26110 Patras, Greece;  
<sup>2</sup>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 chondroitin sulfate**

M.-I. Ellina, V. Zafeiropoulou, A.P. Asimakopoulou, Ch. Gialeli, C. Malavaki, N. K. Karamanos  
Laboratory of Biochemistry, Department of Chemistry, University of Patras, 26110 Patras, Greece;

P05

### **Separation of different mers of hyaluronan by capillary zone electrophoresis**

C. J. Malavaki<sup>1</sup>, E. Mazarakioti<sup>1</sup>, C. Markellou<sup>1</sup>, A. Passi<sup>2</sup>, N. K. Karamanos<sup>1</sup>  
<sup>1</sup>Laboratory of Biochemistry, Department of Chemistry, University of Patras, 26110 Patras, Greece;  
<sup>2</sup>Department of Experimental and Clinical Biomedical Sciences, University of Insubria, Varese, Italy

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<sup>1</sup>, P. G. Dedes<sup>1</sup>, A. I. Tsoris<sup>1</sup>, Ch. Gialeli<sup>1</sup>, D. Kletsas<sup>2</sup>  
<sup>1</sup>Laboratory of Biochemistry, Department of Chemistry, University of Patras, 26110 Patras, Greece;  
<sup>2</sup>Laboratory of Cell Proliferation and Ageing, Institute of Biology, National Center of Scientific Research "Demokritos", Athens, Greece;

P07

### **Estradiol as stimulator of syndecan-4 gene expression in human breast and colon cancer cells**

N. K. Karamanos, Ch. Gialeli, A. I. Tsoris  
Laboratory of Biochemistry, Department of Chemistry, University of Patras, 26110 Patras, Greece;

P08

### **Increased expression of matrix metalloproteinase-9 and of urokinase plasminogen activator in testicular tumors**

E. Milia-Argeiti<sup>1</sup>, E. Huet<sup>2</sup>, B. Vallé<sup>2</sup>, V.T. Labropoulou<sup>3</sup>, S. Menashi<sup>2</sup>, AD Theocharis<sup>1</sup>  
<sup>1</sup> Laboratory of Biochemistry, Department of Chemistry, University of Patras, Greece  
<sup>2</sup> CRRET, University of Paris East, Creteil, France  
<sup>3</sup> Division of Oncology, School of Medicine, University of Patras, Greece

P09

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

E. Milia-Argeiti<sup>1</sup>, E. Huet<sup>2</sup>, B. Vallé<sup>2</sup>, AD Theocharis<sup>1</sup>, S. Menashi<sup>2</sup>  
<sup>1</sup> Laboratory of Biochemistry, Department of Chemistry, University of Patras, Greece  
<sup>2</sup> CRRET, University of Paris East, Creteil, France

P10

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

A. Skirsi<sup>1</sup>, K. Haponen<sup>2</sup>, V. Lambropolou<sup>3</sup>, M. Borset<sup>4</sup>, D. Heinegard<sup>5</sup>, A.M. Blom<sup>2</sup>, A.D. Theocharis<sup>1</sup>  
<sup>1</sup> Laboratory of Biochemistry, Department of Chemistry, University of Patras, Greece Division of  
<sup>2</sup> Department of Laboratory Medicine, Wallenberg Laboratory, University Hospital Malmö, Lund University, Malmö, Sweden  
<sup>3</sup> Oncology, School of Medicine, University of Patras, Greece  
<sup>4</sup> Institute of cancer research and molecular medicine, Norwegian University of Science and Technology, Trondheim, Norway  
<sup>5</sup> 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<sup>1</sup>, I.E. Triantaphyllidou<sup>1</sup>, D. Bounias<sup>2</sup>, D. Kyriakopoulou<sup>2</sup>, M. Stavropoulos<sup>2</sup>, P. Goumas<sup>3</sup>, G. Tsipopoulos<sup>3</sup>, T. Papadas, N. Mastronikolis<sup>3</sup>, D.A. Theocharis<sup>4</sup>, N. Papageorgakopoulou<sup>1</sup>, D.H. Vynios<sup>1</sup>

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<sup>2</sup>Department of General Surgery, University Hospital of Patras

<sup>3</sup>Department of E.N.T. Surgery, University Hospital of Patras

<sup>4</sup>Laboratory of Biological Chemistry, Department of Medicine, University of Patras

P12

### **Versican and Decorin in Colorectal Carcinoma**

D. Kalathas<sup>1</sup>, D. Bounias<sup>2</sup>, D. Kyriakopoulou<sup>2</sup>, M. Stavropoulos<sup>2</sup>, D.A. Theocharis<sup>3</sup>, N. Papageorgakopoulou<sup>1</sup>, D.H. Vynios<sup>1</sup>  
<sup>1</sup>Laboratory of Biochemistry, Department of Chemistry, University of Patras

<sup>2</sup>Department of General Surgery, University Hospital of Patras

<sup>3</sup>Laboratory of Biological Chemistry, Department of Medicine, University of Patras

P13

### **Presence of hyaluronidase isoforms in nasal polyps**

I. E. Triantaphyllidou<sup>1</sup>, E. Tserbini<sup>1</sup>, A. Hatziiri<sup>1</sup>, S. Athanassiou<sup>1</sup>, T. Panogeorgou<sup>2</sup>, H. Bouga<sup>1</sup>, N.S. Mastronikolis<sup>2</sup>, S. Naxakis<sup>2</sup>, A. J. Aletras<sup>1</sup>, P. D. Goumas<sup>2</sup>, D. H. Vynios<sup>1</sup>

<sup>1</sup>Laboratory of Biochemistry, Section of Organic Chemistry and Natural Products, Department of Chemistry,

<sup>2</sup>E.N.T. Clinic, University Hospital, Department of Medicine, University of Patras, 26500 Patras, Greece

P14

### **Hyaluronan synthases and CD44 receptor in colorectal cancer**

E. Bouga<sup>1</sup>, D. H. Vynios<sup>1</sup>, D. Bounias<sup>2</sup>, D. Kyriakopoulou<sup>2</sup>, N. Papageorgakopoulou<sup>1</sup>,  
D. A. Theocharis<sup>3</sup>, M. Stavropoulos<sup>2</sup>

<sup>1</sup>Laboratory of Biochemistry, Department of Chemistry,

<sup>2</sup>Department of Surgery, University Hospital and Department of Medicine,

<sup>3</sup>Laboratory of Biological Chemistry, Department of Medicine, University of Patras, 26500 Patras, Greece

P15

### **Glycosaminoglycan metabolic enzymes in cancer**

I.E. Triantaphyllidou<sup>1</sup>, E. Bouga<sup>1</sup>, I. Tsouris<sup>1</sup>, K. Koliopoulos<sup>1</sup>, D. Bounias<sup>2</sup>, D. Kyriakopoulou<sup>2</sup>, M. Stavropoulos<sup>2</sup>, P. Goumas<sup>3</sup>, G. Tsipopoulos<sup>3</sup>, T. Papadas<sup>3</sup>, N. Mastronikolis<sup>3</sup>, N. Papageorgakopoulou<sup>1</sup>, D.A. Theocharis<sup>4</sup>, D.H. Vynios<sup>1</sup>

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<sup>2</sup>Department of General Surgery, University Hospital,

<sup>3</sup>Department of E.N.T. Surgery, University Hospital,

<sup>4</sup>Laboratory of Biological Chemistry, Department of Medicine, University of Patras, 26500 Patras, Greece

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**

I. Smirlaki<sup>1</sup>, S.D. Athanasiou<sup>1</sup>, M. Giannakouli<sup>1</sup>, E. Giannopoulou<sup>2</sup>, A. J. Aletras<sup>1</sup>

<sup>1</sup>Laboratory of Biochemistry, Department of Chemistry, University of Patras

<sup>2</sup>Department of Pharmacology, Medical School, University of Patras

P17

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

S. Drakouli<sup>1</sup>, S.D. Athanasiou<sup>1</sup>, Th. Stathas<sup>2</sup>, S. Naxakis<sup>2</sup>, E. Giannopoulou<sup>3</sup>, A. J. Aletras<sup>1</sup>

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<sup>2</sup>Department of Otolaryngology, Medical School, University of Patras

<sup>3</sup>Department of Pharmacology, Medical School, University of Patras

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**

S.D. Athanasiou<sup>1</sup>, Th. Stathas<sup>2</sup>, S. Naxakis<sup>2</sup>, E. Giannopoulou<sup>3</sup>, A. J. Aletras<sup>1</sup>

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<sup>2</sup>Department of Otolaryngology, Medical School, University of Patras

<sup>3</sup>Department of Pharmacology, Medical School, University of Patras

P19

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

S. Drakouli<sup>1</sup>, S.D. Athanasiou<sup>1</sup>, Th. Stathas<sup>2</sup>, S. Naxakis<sup>2</sup>, E. Giannopoulou<sup>3</sup>, A. J. Aletras<sup>1</sup>

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<sup>2</sup>Department of Otolaryngology, Medical School, University of Patras

<sup>3</sup>Department of Pharmacology, Medical School, University of Patras

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**

Th. Stathas<sup>2</sup>, S.D. Athanasiou<sup>1</sup>, S. Naxakis<sup>2</sup>, E. Giannopoulou<sup>3</sup>, A. J. Aletras<sup>1</sup>

<sup>1</sup>Laboratory of Biochemistry, Department of Chemistry, University of Patras

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<sup>3</sup>Department of Pharmacology, Medical School, University of Patras

P21

**Fabrication and characterization of polymer nanocomposites based on carbon nanotube films**

G. Trakakis<sup>1</sup>, D. Tasis<sup>2</sup>, K. Papagelis<sup>2</sup>, J. Parthenios<sup>1</sup> and C. Galiotis<sup>1,2</sup>

<sup>1</sup>Institute of Chemical Engineering and High Temperature Chemical Processes, Foundation for Research and Technology, 26504 Rio Patras, Greece

<sup>2</sup>Department of Materials Science, University of Patras, 26504 Patras, Greece

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<sup>1</sup>, G. Tsoukleris<sup>2,4</sup>, J. Parthenios<sup>2,4</sup>, O. Montiselli<sup>3</sup>, S. Russo<sup>5</sup>, C. Galiotis<sup>2,3</sup> and C. Tsitsiliani<sup>1,2</sup>

<sup>1</sup>Department of Chemical Engineering, University of Patras 26504, Patras, Greece

<sup>2</sup>Institute of Chemical Engineering and High Temperature Chemical Processes, Foundation for Research and Technology, 26504 Rio Patras, Greece

<sup>3</sup>Department of Materials Science, University of Patras, 26504 Patras, Greece

<sup>4</sup>Interdepartmental Programme in Polymer Science and Technology, University of Patras, University Campus, Patras GR-265 04, Greece

<sup>5</sup>Department of Chemistry and Industrial Chemistry, University of Genoa, Via Dodecaneso, 31, 16146 – Genova, Italy

P23

**Novel nanocomposites reinforced by vertically aligned carbon nanotubes**

K. Dassios<sup>1,2</sup>, D. Kastanis<sup>1</sup>, C. Galiotis<sup>1,3</sup>

<sup>1</sup>Institute of Chemical Engineering and High Temperature Chemical Processes, Foundation for Research and Technology, 26504 Rio Patras, Greece

<sup>2</sup>Dept. of Materials science and Engineering, Univ. of Ioannina, 451 10 Ioannina

<sup>3</sup>Department of Materials Science, University of Patras, 26504 Patras, Greece

P24

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

S. Tsantalis, E. Panagiotopoulos and V. Kostopoulos

Department of Mechanical Engineering & Aeronautics, University of Patras, Patras University Campus, Greece

P25

**Curcumin-decorated nanosized liposomes : preparation by click chemistry and stability**

S. Mourtas<sup>a</sup>, A. Niarakis<sup>a</sup>, C. Zonab<sup>b</sup>, D. Auriliab<sup>b</sup>, B. La Ferla<sup>b</sup>, F. Nicotra<sup>b</sup>, S. G. Antimisiaris<sup>a,c</sup>

<sup>a</sup> Department of Pharmaceutical Technology, University of Patras, 26500 Rio, Greece ,

<sup>b</sup>University of Milano-Bicocca, Department of Biotechnology and Biosciences, Milano, Italy,

<sup>c</sup> ICEHT-FORTH, Patras, 26500 Rio, Greece

P26

**Iron nanoxide encapsulating nanosized liposomes: preparation and stability**

A. Skouras<sup>a</sup>, S. Matralia<sup>a</sup>, S. Mourtas<sup>a</sup>, S. G. Antimisiaris<sup>a,b</sup>

<sup>a</sup>Laboratory of Pharmaceutical Technology, Department of Pharmacy, University of Patras, GREECE, <sup>b</sup>FORTH/ICE-HT, Patras,

GREECE

P27

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

E. Markoutsas<sup>1</sup>, G. Pampalakis<sup>1</sup>, A. Niarakis<sup>1</sup>, I. A. Romero<sup>3</sup>, B. Weksler<sup>3</sup>, P-O Couraud<sup>3</sup>, S G. Antimisiaris<sup>1,2</sup>,

<sup>1</sup>Laboratory of Pharmaceutical Technology, Department of Pharmacy, University of Patras, and <sup>2</sup>FORTH/ICE-HT, Patras GREECE;

<sup>3</sup>INSERM, 101 rue de Tolbiac, 75654 PARIS CEDEX 13, FRANCE

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<sup>1</sup>, E. Sadikoglou<sup>1</sup>, O. Theodorakopoulou<sup>1</sup>, C. Lampropoulou<sup>1</sup>, G. Magoulas<sup>2</sup>, D. Drainas<sup>3</sup>, D. Papaioannou<sup>2</sup> and E. Papadimitriou<sup>1</sup>

<sup>1</sup>Laboratory of Molecular Pharmacology, Department of Pharmacy, School of Health Sciences; <sup>2</sup>Department of Chemistry, School of Natural Sciences; <sup>3</sup>Department of Biochemistry, School of Medicine University of Patras, GR-26504 Patras, Greece

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**Role of pleiotrophin in human prostate cancer cell growth in vivo**

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**Cyclin-dependent kinase 5 interacts with RPTP $\beta/\zeta$  and mediates pleiotrophin-induced endothelial cell migration**

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

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**pH Responsive Reversible Hydrogel/Liposome Composites For Tuning Drug Release**

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

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