

## GAIO PARADOSSI

Dipartimento di Scienze e Tecnologie Chimiche  
Università di Roma Tor Vergata  
00133 Rome, Italy  
Phone: (0039) 0672594464 fax: (0039) 0672594328  
Web site: [www.stc.uniroma2.it/cfmacro/cfmacroindex.htm](http://www.stc.uniroma2.it/cfmacro/cfmacroindex.htm)  
h-index: 21 (www.scopus.com)  
h-index:23 (google scholar)

### Educazione

Maturità classica (Liceo Ginnasio Statale Augusto, Roma) Luglio 1974  
Laurea in Chimica cum Laude, Dicembre 1979

### ESPERIENZE PROFESSIONALI

Weizmann Institute, Polymer Research Department, Rehovot, Israel.  
Visiting Scientist, Gennaio 1980 - Maggio 1980

University of California, Department of Chemistry, Irvine, USA.  
Postdoctoral fellow, Giugno 1980 - Dicembre 1982

Centre de Recherches sur les Macromolécules Vegetales (C.E.R.M.A.V.) -  
CNRS, Grenoble, France. Ricercatore Associato, Maggio 1982 - Dicembre  
1982 e successivamente Giugno - Settembre 1984 (Servizio militare  
svolto fra i due periodi).

Università di Napoli, Dipartimento di Chimica, Napoli, Italy. Ricercatore  
Chimica Fisica (CHIM 02) dal 1984 al 1987. Ricercatore Confermato in  
Chimica Fisica (CHIM02) dal 1987.

Università di Roma Tor Vergata, Dipartimento di Scienze e Tecnologie  
Chimiche. Roma, Italy. Ricercatore confermato di Chimica Fisica da  
Novembre 1988 al 1999.

Kyoto Institute of Technology. Visiting Professor da Gennaio 1999 ad  
Aprile 1999.

Università di Roma Tor Vergata, Dipartimento di Scienze e Tecnologie  
Chimiche. Roma, Italy. Professore Associato di Chimica Fisica da  
Novembre 1999 ad oggi.

### PARTECIPAZIONI A COMMISSIONI NAZIONALI ED EUROPEE

Rappresentante nazionale all'Azione P1 COST: Physics of Soft Condensed  
Matter (1999 - 2002)

Ministero delle Attività Produttive, valutatore esterno di progetti  
industriali PIA 2003-2010

Membro della Piattaforma per la Tecnologie Europea: NANOMEDICINE  
(dal 2008)

Valutatore esterno per EPA (Environment Protection Agency) Irlanda  
(2005-2009) di progetti nell' area della chimica e della biofisica

FIRB 2011: valuator di Progetti di Ricerca "Futuro in Ricerca" MIUR  
ERA-NET Valutatore esterno (2012)  
Esperto valutatore progetti R & S della Regione Toscana (2012)

#### RICONOSCIMENTI E PREMI

2005: Premio Internazionale della Fondazione GEMI Fund (Svezia) e Harvard Medical School per il progetto: "Microbolle polimeriche come dispositivi per il trasporto di gas terapeutici"

2009 PREMIO Miglior poster "Soft Matter for biomedicine: Tow case studies" XXIII Congresso della Società Chimica Italiana.

2011 Premio "Best Poster" 3rd International Conference on Biomaterials "Synthesis of Biodegradable and Thermoresponsive Hydrogel via RAFT Polymerization and Click Chemistry for Tissue Engineering"

#### PUBBLICAZIONI

E' Autore di oltre 120 pubblicazioni scientifiche su riviste internazionale ad alto impatto a più referee

E' Autore di 3 Brevetti

#### CONFERENZE SU INVITO

Università di Parma, Dipartimento di Fisica, March 2001

National Chemical Laboratory, Pune, India, March 2009

Università di Padova, Dipartimento di Fisica, LUGLIO 2010.

Macro 2010, New Delhi, India, DICEMBRE 15 -17, 2010

Università di Torino, Dipartimento di Tecnologie Farmaceutiche, GIUGNO 5, 2012

#### COMUNICAZIONI ORALI A CONVEGNI NAZIONALI ED INTERNAZIONALI

Euresco Conferences "Interfaces and Colloidal Systems", Maratea 2001: Recent results on the Incoherent Quasi-elastic Neutron Scattering Study of chemical hydrogels based on Poly (vinyl alcohol)

International Conference on "Advances of Biomaterials for Reconstructive Medicine", Capri, Italy, 2002:  
Poly (vinyl alcohol) as versatile biomaterial for "soft matter" applications

XXXIII National Congress of the Italian Chemical Society, Naples, Italy, 2004:

Multifunctional Polymer devices for biomedical applications: micro bubbles and microspheres in microfluidics

European Colloid and Interface Society, XX conference, Budapest, Hungary, 2006

Polymeric micro bubbles as multifunctional Ultrasound Contrast Agents: Design, Properties, and Ultrasound Behaviour.

6th International Workshop on Drug Delivery Systems for Nanomedicine. Nanostructures and their biomedical applications. Czech Republic, October 3-6, 2009.

Drug delivery by microbubbles. Potentialities and drawbacks.

XXIII National Congress of the Italian Chemical Society, Sorrento, Italy, 2009

Novel Polymer shelled microballoons for diagnostic and therapeutic purposes

7th EBSA, European Biophysical Congress, Genova, Italy, 2009:  
Soft Matter for biomedicine: Two case studies.

MACRO 2009, Chennai, India, 2009

A Novel Temperature Sensitive Hydrogel Microdevice based on Poly(vinyl alcohol)/Poly(methacrylate-co-Nisopropyl acrylamide)

First World on Nanomedicine and Drug Delivery, WCN 2010, India 2010:  
Novel Polymer shelled microballoons for diagnostic and therapeutic purposes: new outcomes from the European project SIGHT

MACRO 2010, New Delhi, 2010

"Smart thermoresponsive Micro/nanogels based on Dextran/poly (MAmNiPAAm)"

Workshop 2010: Polysaccharides for Pharmaceutical and Biomedical Applications.

Controlled Release Society, Rome 2010.

"Polysaccharides as main tool for designing drug vectors"

European Polymer Federation Congress 2011, June 2011, Granada (Spain).

"Dextran based Micro-/Nano-gels as Injectable Device for Controlled Release System"

Radio3Scienza del 22 Febbraio 2012

Intervista su: Nuovi farmaci e pillole - kamikaze

[www.radio3.rai.it/dl/radio3/programmi/puntata/ContentItem-e3add8ba-c700-4b26-9959-03b328ff362b.html](http://www.radio3.rai.it/dl/radio3/programmi/puntata/ContentItem-e3add8ba-c700-4b26-9959-03b328ff362b.html)

Polymer Network Group 2012, Jackson Hole, August 2012, USA  
"Multifunctional microgels: "Smartness" for complex jobs"

## FINANZIAMENTI RICEVUTI

European Commission, 7th Framework Programme (2010 - 2012)  
"Microbubble driven multimodal imaging and theranostics for gliomas" -  
TheraGlio total budget 6 M€, Unit budget 870,000 €

European Commission, 7th Framework Programme (2010 - 2012) "Three  
modality contrast imaging using multi-functionalised microballoons" -  
3MICRON total budget 3 M€, Unit budget 450,000 €

European Commission, 6th Framework Programme (2006 - 2009)  
"Systems for in situ theranostics using microparticles triggered by  
ultrasound" - SIGHT. Scientific coordination, total budget 3M€, direct  
budget 350,000 €.

FIDIA Farmaceutici, Italy 2006 - 2011 "Physical and chemical  
characterization of viscosupplements based on hyaluronic acid" Budget  
200,000 €

Collaborative national project PRIN 2007 "Polymeric biomatrixes: Physico  
chemical characterization". Total budget 500,000 €, direct budget  
80,000 €

LINDE GAS, Sweden 2004 - 2006, "Gas carrier microballoons with  
diagnostic and therapeutic features" Budget 150,000 €

National project PRIN 2004 "Dynamics and structural features in poly-  
and oligosaccharide matrixes" Total Budget 400,000 €, direct budget  
70,000 €

Collaborative national project FIRB 2001 "Study, realization and  
experiment on microsystems for controlled drug delivery in situ." Total  
Budget 700,000 €, direct budget 75,000 €

Collaborative national project PRIN 1999 "From Biodiversity to Industry"  
Total budget 400,000 €, direct budget 60,000 €

## SOCIETA' PROFESSIONALI

American Chemical Society (ACS)  
Società Chimica Italia (SCI)  
Associazione Italiana delle Macromolecole (AIM)  
Control Release Society (Italian Chapter)

## REFEREE PER LE RIVISTE SCIENTIFICHE:

Biomacromolecules  
Biomaterials  
Journal of the American Chemical Society  
Journal of Applied Polymer Science  
Journal of Biomedical Materials Research  
Journal of Controlled Release  
Journal of Pharmaceutical Sciences  
Journal of Polymer Science-Polymer Chemistry  
Journal of Polymer Science-Polymer Physics  
Langmuir  
Macromolecules  
Macromolecular bioscience  
ACS Nano

## ATTIVITA' DIDATTICA

1999-2010: Chimica Fisica 1: Termodinamica e cinetica per Corsi di Laurea in Chimica e in Scienza dei Materiali (Valutazione degli Studenti dal 2005: 4/5)  
2000-fino ad oggi: Chimica delle Macromolecole per Corsi di Laurea in Chimica e Scienza dei materiali  
1984-1999: laboratorio di Chimica Fisica I per Corso di Laurea in Chimica  
2005 -fino ad oggi: Biomateriali per il Corso di Laurea in Scienze dei Materiali.

Supervisore di oltre 20 tesi sperimentali (Master e Dottorati):.

## **PUBLICATIONS 2010 to now**

### **(in neretto le pubblicazione in cui Paradossi è autore principale):**

S. Capece, E. Chiessi, P. Giustetto, R. Cavalli, Dmitry Grishenkov and **G. Paradossi**  
A general strategy for the obtainment of biodegradable polymer shelled microbubbles as  
theranostic device  
*Chemical Communication*, accepted 2013.

S.V. Gughare, E. Chiessi and **G. Paradossi**  
"Thermoresponsive and Biodegradable Dextran based Microgels: Synthesis and Structural  
Investigation"  
*Macromolecular Symposia*, accepted 2013.

S. V. Ghugare, B. Cerroni, E. Chiessi, R. Fink, and **G. Paradossi**  
"Poly(VinylAlcohol)/Poly(Methacrylate-Co-N-Isopropylacrylamide) Composite  
Thermoresponsive Microgels for Drug Delivery " in *Advances in Materials Science. Composites  
and Nanocomposites* , Chapter 17. CRC Press, A. K. Hagi, Oluwatobi Samuel Oluwafemi,  
Josmin P. Jose, Hanna J. Maria Eds. 2013. ISBN 9781926895284

S. V. Ghugare, E. Chiessi, M.T.F. Telling, V. Garcia-Sakay, and **Gaio Paradossi**  
Thermoresponsive and Biodegradable Dextran based Microgels: Synthesis and Structural  
Investigation, accepted *Macromolecular Symposia*, 2013.

**Gaio Paradossi** "Hydrogels Formed by Cross-linked Poly(vinyl alcohol)" in "Polymeric  
Biomaterials: Structure and Function, Volume 1" CRC Press, S. Dumitriu, V. I. Popa Eds.  
2013, ISBN 9781420094701

Åsa A Barrefelt, Torkel B Brismar, Gabriella Egri, Peter Aspelin, Annie Olsson, Letizia Oddo,  
Silvia Margheritelli, Kenneth Caidahl, Gaio Paradossi, Lars Dähne, Rimma Axelsson,  
Moustapha Hassan  
"Multimodality imaging using SPECT/CT and MRI and ligand functionalized 99mTc-labeled  
magnetic microbubbles"  
*European Journal of Nuclear Medicine and Medical Imaging*, 2013, 3, 1 -14

Chiara Chiapponi, Maria Teresa Di Bari, Yuri Gerelli, Antonio Deriu, Ester Chiessi, Ivana Finelli,  
Gaio Paradossi, Margarita Russina, Zunbeltz Izaola, and Victoria Garcia Sakai "Water  
Dynamics in Physical Hydrogels Based On Partially Hydrophobized Hyaluronic Acid"  
*J. Phys. Chem. B*, 116 (43), 12915–12921 (2012)

Sidhendra G. Kupal, Barbara Cerroni, Shivkumar V. Ghugare, Ester Chiessi, and **Gaio  
Paradossi** "Biointerface Properties of Core-Shell Poly(vinyl alcohol)-hyaluronic Acid  
Microgels Based on Chemoselective Chemistry"  
*Biomacromolecules*, 13, 3592-3601 (2012)

Giulio Tesei, Gaio Paradossi and Ester Chiessi "Poly(vinyl alcohol) Oligomer in Dilute  
Aqueous Solution: A Comparative Molecular Dynamics Simulation Study"  
*J. Phys. Chem. B*, 116 (33), 10008–10019 (2012)

F. Saglimbeni, S. Bianchi, G. Bolognesi, G. Paradossi and R. Di Leonardo "Optical characterization of an individual polymer-shelled microbubble structure via digital holography"  
*Soft Matter* 8 , 8822-8825 (2012)

Magnetite nanoparticles can be coupled with microbubbles to support multimodal imaging. Torkel B. Brismar, Dmitry Grishenkov, Björn Gustafsson, Johan Härmark, Åsa Barrefelt, Satya V. V. N. Kothapalli, Silvia Margheritelli, Letizia Oddo, Kenneth Caidahl, Hans Hebert and **Gaio Paradossi**  
*Biomacromolecules*, **2012**, 13, 1390 - 1399

Shivkumar V. Ghugare, Ester Chiessi, Barbara Cerroni, Mark T. F. Telling, Victoria Garcia Sakay, **Gaio Paradossi**  
"Biodegradable dextran based microgels: a study on network associated water diffusion and enzymatic degradation" *Soft Matter* **2012**, 8, 2494 - 2502.

Claudia Sciallero, Gaio Paradossi and Andrea Trucco  
"A preliminary in vitro assessment of polymer- shelled microbubbles in contrast-enhanced ultrasound imaging" *Ultrasonics* **2012**, 52 (3), 456-464.

Ivana Finelli, Ester Chiessi, Davide Renier, Devis Galesso, **Gaio Paradossi**  
"A new viscosupplement based on partially hydrophobic hyaluronic acid: A comparative study"  
*Biorheology*, **2011**, 48, 263 - 275

Gaio Paradossi, Ivana Finelli, Francesca Natali, Mark T. F. Telling and Ester Chiessi "Polymer and Water Dynamics in Poly(vinyl alcohol)/Poly(methacrylate) Networks. A Molecular Dynamics Simulation and Incoherent Neutron Scattering Investigation" *Polymers* 3(4) , 1805-1832 (2011)

Alice Galbiati, Claudio Tabolacci, Blasco Morozzo Della Rocca, Simone Beninati, Alessandro Desideri and **Gaio Paradossi** "PVA engineered microcapsules for targeted delivery of camptothecin to HeLa cells" *Materials Science and Engineering: C*. 31 , 1653-1659 (2011)

Alice Galbiati, Claudio Tabolacci, Blasco Morozzo Della Rocca, Palma Mattioli, Simone Beninati, Gaio Paradossi, and Alessandro Desideri  
Targeting Tumor Cells through Chitosan-Folate Modified Microcapsules Loaded with Camptothecin.  
*Bioconjugate Chemistry*, 22 (6) , 1066–1072 (2011).

Shivkumar V. Ghugare, Ester Chiessi, Rainer Fink, Yuri Gerelli, Andrea Scotti, Antonio Deriu, Geraldine Carrot, and **Gaio Paradossi**  
Structural Investigation on Thermoresponsive PVA/Poly(methacrylate-co-N-isopropylacrylamide) Microgels across the Volume Phase Transition.  
*Macromolecules*, 44(11) , 4470–4478 (2011)

Emmanuel Autieri, Ester Chiessi, Alice Lonardi, Gaio Paradossi, Marcello Segà

Conformation and Dynamics of Poly(*N*-isopropyl acrylamide) Trimers in Water: A Molecular Dynamics and Metadynamics Simulation Study *Journal of Physical Chemistry B*, 2011, 115, 5827–5839.

Barbara Cerroni, Ester Chiessi, Silvia Margheritelli, Letizia Oddo and **Gaio Paradossi**  
Polymer Shelled Microparticles for a Targeted Doxorubicin Delivery in Cancer Therapy  
*Biomacromolecules* 2011, 12, pp 593–601

Dmitry Grishenkov, Leif Kari, Lars-Åke Brodin, Torkel B. Brismar and Gaio Paradossi  
"In vitro contrast-enhanced ultrasound measurements of capillary microcirculation:  
Comparison between polymer- and phospholipid-shelled microbubbles" *Ultrasonics*, 51, 40-  
48 (2011)

Ester Chiessi and **Gaio Paradossi**  
"Problemi di Chimica Fisica"  
Universitalia, Rome, 2011. ISBN 978-88-95244-49-5

Shivkumar V. Ghugare, Ester Chiessi, Mark T. F. Telling, Antonio Deriu, Yuri Gerelli, Joachim Wuttke and **Gaio Paradossi**  
"Structure and Dynamics of a Thermoresponsive Microgel around Its Volume Phase Transition Temperature"  
*J. Phys. Chem. B*, 114, 10285–10293 (2010)

Ester Chiessi, Alice Lonardi, Gaio Paradossi  
"Toward Modeling Thermoresponsive Polymer Networks: A Molecular Dynamics Simulation Study of *N*-Isopropyl Acrylamide Co-oligomers"  
*J. Phys. Chem. B*, 114, 8301–8312 (2010)

George Tzvetkov, Gaio Paradossi, Mariarosaria Tortora, Paulo Fernandes, Andreas Fery, Birgit Graf-Zeiler, Rainer H. Fink  
"Water-dispersible PVA-based dry microballoons with potential for biomedical applications"  
*Materials Science and Engineering C* 30 (2010) 412–416



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h-index: 21 (www.scopus.com)  
h-index:23 (google scholar)

### EDUCATION

Maturità classica (Liceo Ginnasio Statale Augusto, Roma) Highschool Diploma, July 1974  
Dottore (laurea) in Chimica cum Laude, Doctor in Chemistry (110/110 e lode), December 1979

### PROFESSIONAL EXPERIENCE

Weizmann Institute, Polymer Research Department, Rehovot, Israel. Visiting Scientist, January 1980 - May 1980  
University of California, Department of Chemistry, Irvine, USA. Postdoctoral fellow, June 1980 - December 1982  
Centre de Recherches sur les Macromolécules Vegetales (C.E.R.M.A.V.) - CNRS, Grenoble, France. Dr. Henry Chanzy's group. Research Associate, May 1982 - December 1982 and June - September 1984 (army service in Italy between the two periods).  
Università di Naples, Dipartimento di Chimica, Napoli, Italy. Assistant Professor of Physical Chemistry,  
Università di Roma Tor Vergata, Dipartimento di Scienze e Tecnologie Chimiche. Roma, Italy. Assistant Professor of Physical Chemistry from November 1988 to 1999.  
Kyoto Institute of Technology. Visiting Professor from January 1999 to April 1999.  
Università di Roma Tor Vergata, Dipartimento di Scienze e Tecnologie Chimiche. Roma, Italy. Associate Professor of Physical Chemistry from November 1999 to now.

## PARTICIPATION TO EUROPEAN AND NATIONAL PANELS

National representative to COST action P1: Physics of Soft Condensed Matter (1999 – 2002)

Ministero delle Attività Produttive, evaluator industrial projects PIA 2003-2010

Member of the European Technology Platform (ETP): NANOMEDICINE (from 2008)

EPA Ireland (2005-2009): Reviewer of projects in the area of chemistry, biophysics

FIRB 2011: "Futuro in Ricerca" project reviewer for the Ministry of Education and Research

ERA-NET external expert (2012)

Reviewer R & D projects for Regione Toscana (2012)

## HONORS AND AWARDS

2005: International Award (\$100,000) of the GEMI Foundation (Sweden) in collaboration with the Harvard Medical School for the research project "Polymeric Microbubbles as device for carrying therapeutic gasses".

2009 PREMIO Miglior poster "Soft Matter for biomedicine: Two case studies" XXIII Congresso della Società Chimica Italiana.

2011 Premio "Best Poster" 3rd International Conference on Biomaterials "Synthesis of Biodegradable and Thermoresponsive Hydrogel via RAFT Polymerization and Click Chemistry for Tissue Engineering"

## PUBLICATIONS

More than 120 papers on high impact international scientific journals with peer review system.

## INVITED LECTURES

Università di Padova, Dipartimento di Fisica, July 2010.

Università di Parma, Dipartimento di Fisica, March 2001

National Chemical Laboratory, Pune, India, March 2009

Macro 2010, New Delhi, India, December 15 -17, 2010

Università di Torino, Dipartimento di Tecnologie Farmaceutiche, June 5, 2012

## ORAL COMMUNICATION AT NATIONAL AND INTERNATIONAL MEETINGS

Euresco Conferences "Interfaces and Colloidal Systems", Maratea 2001:

Recent results on the Incoherent Quasi-elastic Neutron Scattering Study of chemical hydrogels based on Poly (vinyl alcohol)

International Conference on "Advances of Biomaterials for Reconstructive Medicine",  
Capri, Italy, 2002:

Poly (vinyl alcohol) as versatile biomaterial for "soft matter" applications

XXXIII National Congress of the Italian Chemical Society, Naples, Italy, 2004:

Multifunctional Polymer devices for biomedical applications: micro bubbles and microspheres in microfluidics

European Colloid and Interface Society, XX conference, Budapest, Hungary, 2006

Polymeric micro bubbles as multifunctional Ultrasound Contrast Agents: Design, Properties, and Ultrasound Behaviour.

6th International Workshop on Drug Delivery Systems for Nanomedicine. Nanostructures and their biomedical applications. Czech Republic, October 3-6, 2009.

Drug delivery by microbubbles. Potentialities and drawbacks.

XXIII National Congress of the Italian Chemical Society, Sorrento, Italy, 2009

Novel Polymer shelled microballoons for diagnostic and therapeutic purposes

7th EBSA, European Biophysical Congress, Genova, Italy, 2009:

Soft Matter for biomedicine: Two case studies.

MACRO 2009, Chennai, India, 2009

A Novel Temperature Sensitive Hydrogel Microdevice based on Poly(vinyl alcohol)/Poly(methacrylate-co-Nisopropyl acrylamide)

First World on Nanomedicine and Drug Delivery, WCN 2010, India 2010:  
Novel Polymer shelled microballoons for diagnostic and therapeutic purposes: new outcomes from the European project SIGHT

MACRO 2010, New Delhi, 2010

"Smart thermoresponsive Micro/nanogels based on Dextran/poly (MAMNiPAAm)"

Workshop 2010: Polysaccharides for Pharmaceutical and Biomedical

Applications.

Controlled Release Society, Rome 2010.

"Polysaccharides as main tool for designing drug vectors"

European Polymer Federation Congress 2011, June 2011, Granada (Spain).

"Dextran based Micro-/Nano-gels as Injectable Device for Controlled Release System"

Polymer Network Group, Jackson Hole August 2012, USA.

"Multifunctional Microgels: "Smartness" for complex jobs"

Radio3Scienza del 22 Febbraio 2012

Intervista su: Nuovi farmaci e pillole - kamikaze

[www.radio3.rai.it/dl/radio3/programmi/puntata/ContentItem-e3add8ba-c700-4b26-9959-03b328ff362b.html](http://www.radio3.rai.it/dl/radio3/programmi/puntata/ContentItem-e3add8ba-c700-4b26-9959-03b328ff362b.html)

#### GRANTS RECEIVED

European Commission, 7th Framework Programme (2010 - 2012) "Three modality contrast imaging using multi-functionalised microballoons" - 3MICRON total budget 3 M€, direct budget 300,000 €

European Commission, 6th Framework Programme (2006 - 2009) "Systems for in situ theranostics using microparticles triggered by ultrasound" - SIGHT. Scientific coordination, total budget 3M€, direct budget 300,000 €.

FIDIA Farmaceutici, Italy 2006 - 2011 "Physical and chemical characterization of viscosupplements based on hyaluronic acid" Budget 200,000 €

Collaborative national project PRIN 2007 "Polymeric biomatrixes: Physico chemical characterization". Total budget 500,000 €, direct budget 80,000 €

LINDE GAS, Sweden 2004 - 2006, "Gas carrier microballoons with diagnostic and therapeutic features" Budget 150,000 €

National project PRIN 2004 "Dynamics and structural features in poly- and oligosaccharide matrixes" Total Budget 400,000 €, direct budget 70,000 €

Collaborative national project FIRB 2001 "Study, realization and experiment on microsystems for controlled drug delivery in situ." Total

Budget 700,000 €, direct budget 75,000 €

Collaborative national project PRIN 1999 "From Biodiversity to Industry"

Total budget 400,000 €, direct budget 60,000 €

#### PROFESSIONAL SOCIETIES

American Chemical Society (ACS)

Società Chimica Italia (SCI)

Associazione Italiana delle Macromolecole (AIM)

Control Release Society (Italian Chapter)

#### REVIEWER OF JOURNALS

Biomacromolecules

Biomaterials

Journal of the American Chemical Society

Journal of Applied Polymer Science

Journal of Biomedical Materials Research

Journal of Controlled Release

Journal of Pharmaceutical Sciences

Journal of Polymer Science-Polymer Chemistry

Journal of Polymer Science-Polymer Physics

Langmuir

Macromolecules

Macromolecular bioscience

ACS Nano

#### COURSES TAUGHT

1999-2010: Physical Chemistry 1: Thermodynamics and kinetics for Chemistry and Material Science (Instructor rating available since 2005: 4/5)

2000-up to now: Polymer Chemistry for Chemistry and Material Science

1984-1999: Laboratory of Physical Chemistry 1 for Chemistry.

2005 – up to now: Biomaterials for Material Science.

#### PARTICIPATION TO EXAMINATION COMMITTEES FOR PhD

2004 University College of Dublin. Chemistry

2008 University of Manchester. Faculty of Medical and Human sciences

2010 University di Trieste. School of Molecular Biomedicine

2009 University di Roma Sapienza. Chemistry

2010 University of Naples, Chemistry

PAST AND PRESENT TUTORSHIPS. More than 20 Experimental thesis (Master and PhD)

**PUBLICATIONS 2010 to now**

**(in bold the papers where Paradossi is corresponding author):**

S. Capece, E. Chiessi, P. Giustetto, R. Cavalli, Dmitry Grishenkov and **G. Paradossi**  
A general strategy for the obtainment of biodegradable polymer shelled microbubbles as  
theranostic device  
*Chemical Communication*, 2013,

S.V. Gughare, E. Chiessi and **G. Paradossi**  
"Thermoresponsive and Biodegradable Dextran based Microgels: Synthesis and Structural  
Investigation"  
*Macromolecular Symposia*, accepted 2013.

S. V. Ghugare, B. Cerroni, E. Chiessi, R. Fink, and **G. Paradossi**  
"Poly(VinylAlcohol)/Poly(Methacrylate-Co-N-Isopropylacrylamide) Composite  
Thermoresponsive Microgels for Drug Delivery " in *Advances in Materials Science. Composites  
and Nanocomposites* , Chapter 17. CRC Press, A. K. Haghi, Oluwatobi Samuel Oluwafemi,  
Josmin P. Jose, Hanna J. Maria Eds. 2013. ISBN 9781926895284

S. V. Ghugare, E. Chiessi, M.T.F. Telling, V. Garcia-Sakay, and **Gaio Paradossi**  
Thermoresponsive and Biodegradable Dextran based Microgels: Synthesis and Structural  
Investigation, accepted *Macromolecular Symposia*, 2013.

**Gaio Paradossi** "Hydrogels Formed by Cross-linked Poly(vinyl alcohol)" in "Polymeric  
Biomaterials: Structure and Function, Volume 1" CRC Press, S. Dumitriu, V. I. Popa Eds.  
2013, ISBN 9781420094701

Åsa A Barrefelt, Torkel B Brismar, Gabriella Egri, Peter Aspelin, Annie Olsson, Letizia Oddo,  
Silvia Margheritelli, Kenneth Caidahl, Gaio Paradossi, Lars Dähne, Rimma Axelsson,  
Moustapha Hassan  
"Multimodality imaging using SPECT/CT and MRI and ligand functionalized <sup>99m</sup>Tc-labeled  
magnetic microbubbles"  
*European Journal of Nuclear Medicine and Medical Imaging*, 2013, 3, 1 -14

Chiara Chiapponi, Maria Teresa Di Bari, Yuri Gerelli, Antonio Deriu, Ester Chiessi, Ivana Finelli, Gaio Paradossi, Margarita Russina, Zunbeltz Izaola, and Victoria Garcia Sakai  
"Water Dynamics in Physical Hydrogels Based On Partially Hydrophobized Hyaluronic Acid"  
*J. Phys. Chem. B*, 116 (43), 12915–12921 (2012)

Sidhendra G. Kupal, Barbara Cerroni, Shivkumar V. Ghugare, Ester Chiessi, and **Gaio Paradossi** "Biointerface Properties of Core-Shell Poly(vinyl alcohol)-hyaluronic Acid Microgels Based on Chemoselective Chemistry"  
*Biomacromolecules*, 13, 3592-3601 (2012)

Giulio Tesei, Gaio Paradossi and Ester Chiessi "Poly(vinyl alcohol) Oligomer in Dilute Aqueous Solution: A Comparative Molecular Dynamics Simulation Study"  
*J. Phys. Chem. B*, 116 (33), 10008–10019 (2012)

F. Saglimbeni, S. Bianchi, G. Bolognesi, G. Paradossi and R. Di Leonardo "Optical characterization of an individual polymer-shelled microbubble structure via digital holography"  
*Soft Matter* 8 , 8822-8825 (2012)

Magnetite nanoparticles can be coupled with microbubbles to support multimodal imaging. Torkel B. Brismar, Dmitry Grishenkov, Björn Gustafsson, Johan Härmärk, Åsa Barrefelt, Satya V. V. N. Kothapalli, Silvia Margheritelli, Letizia Oddo, Kenneth Caidahl, Hans Hebert and **Gaio Paradossi**  
*Biomacromolecules*, 2012, 13, 1390 - 1399

Shivkumar V. Ghugare, Ester Chiessi, Barbara Cerroni, Mark T. F. Telling, Victoria Garcia Sakay, **Gaio Paradossi**  
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