

Università degli Studi del Piemonte Orientale

“Amedeo Avogadro”

Dipartimento di Scienze Mediche



Dottorato di Ricerca in Medicina Molecolare

Ciclo XXVI (2010-2013)

Candidato: Nausicaa Clemente

Tutor e Relatore: Prof. Umberto Dianzani

Settembre 2013

ELENCO DEI SEMINARI FREQUENTATI AA 2010-2011

1. *"Biom mineralization and preparation of biomimetic nanoapatites"*, tenuto dal Dott. Jaime Gómez Morales (Laboratorio de Estudios Cristalográficos (LEC) Instituto Andaluz de Ciencias de la Tierra CSIC/Universidad de Granada Granada, Spain);
2. *"Characterization of biomimetic nanoapatites"*, tenuto dal Dott. Jose Manuel Delgado (Laboratorio de Estudios Cristalográficos (LEC) Instituto Andaluz de Ciencias de la Tierra CSIC/Universidad de Granada Granada, Spain);
3. *"Le cellule NK: dalla biologia alla terapia di leucemie ad alto rischio"*, tenuto dal Dott. Lorenzo Moretta (Università di Genova);
4. *"Targeting lactate-fueled respiration in cancer: a new therapeutic opportunity?"*, tenuto dal Prof. Pierre Sonveaux (Irec, Pole of Pharmacology and Therapeutics University of Louvain (UCL) Medical School Bruxelles);
5. *"Bone and DDS: development of bioactive artificial bone with drug delivery ability"*, tenuto dal Prof. Makoto Otsuka (Musashino University Research Institute of Pharmaceutical Sciences - Tokyo);
6. *"DNA-complex releasing system by apatitic cement for gene therapy"*, tenuto dal Prof. Tomoko Ito (Musashino University Research Institute of Pharmaceutical Sciences - Tokyo);
7. 3 seminari su argomenti immunologici tenuti dalle specializzande in pediatria;
 - 1- *"Immunità ed immunopatologia in risposta ad infezioni virali"* (dott.sse Giacomina e Lonati - Pediatria)
 - 2- *"Il cromosoma X nelle funzioni immunitarie"* (dott.sse Di Dio e Dondi - Pediatria)
 - 3- *"Mastociti: fisiologia e patologia"* (dott.sse Bonsignori e Grassino - Pediatria)
8. *"Linfomi cutanei primitivi"*, tenuto dal Prof. Emilio Berti (Istituto di Dermatologia, Università degli studi Milano- Bicocca);
9. *"Ferritins: ancient proteins with novel unexpected features"*, tenuto dalla Dr.ssa Sonia Levi (Associate Professor of Biology Vita-Salute San Raffaele University & Head, Proteomic of Iron Metabolism Unit Division of Neuroscience San Raffaele Scientific Institute Milano, Italia);
10. *"Metabolic syndrome: the gastroenterologist point of view"*, tenuto dalla Dr.ssa Elisabetta Bugianesi (Università di Torino, Italia);
11. *"Liver fibrosis in children affected by NASH: how to investigate that"*, tenuto dal Dr. Valerio Nobili,(Ospedale Pediatrico del Bambino Gesù, Roma);
12. *"Reverse vaccination in autoimmune diseases"*, tenuto dal Dr. Gilberto Filaci (Università di Genova);
13. *"Innate Immunity and the pathogenicity of inhaled microbial particles"*, tenuto dal Dr. Henrik Wolff (Finnish Institute of Occupational Health);
14. *"Farmacologia dell'aterosclerosi"*, tenuto dal Dr. Alberto Corsini;

15. *"Celiachia: vecchie conoscenze e novità dalla ricerca"*, IRCAD;
16. *"Molecular pathogenesis and biomarkers of Parkinson's disease"*, tenuto dal Prof. Mauro Fasano (Laboratory of Biochemistry and Proteomics Dept. of Structural & Functional Biology Section of Human Biology University of Insubria Varese, Italy);
17. *"Importance of pathobiology in rheumatoid arthritis pathogenesis, disease evolution and response treatment (The PEAC Project)"*, tenuto dal Prof. Costantino Pitzalis MD PhD FRCP (Professor of Experimental Medicine and Rheumatology Director Musculoskeletal Clinical Academic Unit Barts and the London NHS Trust Head of Centre for Experimental Medicine and Rheumatology William Harvey Research Institute Barts and the London School of Medicine and Dentistry Charterhouse Square, London UK);
18. *"Frontotemporal Dementia: trying to solve a complex disorder"*, tenuto dal Dr Jonathan D. Rohrer (MRC Dementia Research Centre Institute of Neurology University College London Queen Square, London);
19. *"Management of high risk chronic lymphocytic leukemia"*, tenuto dal Prof. Thorsten Zenz (Department of Translational Oncology, National Center for Tumor Diseases (NCT) and DKFZ, Department of Internal Medicine V, University of Heidelberg);
20. *"Hypoxia, angiogenesis and liver fibrogenesis"*, tenuto dal Prof. Maurizio Parola (Università di Torino);

ATTIVITA' FORMATIVA SVOLTA AA 2010-2011

Lezioni frontali interne al dipartimento:

1. *"Introduction to systemic degenerative diseases"* Prof. Emanuele Albano;
2. *"Amyotrophic latera sclerosis"* Prof. Lucia Corrado;
3. *"Parkinson and Alzheimer diseases"* Prof. Cristoforo Comi;

CONGRESSI FREQUENTATI AA 2010-2011

2° Congresso Nazionale IFIACI (Federazione delle società Italiane di Immunologia, Allergologia ed Immunologia Clinica); Roma 25-28 Maggio 2011

ELENCO DEI SEMINARI FREQUENTATI AA 2011-2012

1. *"Neuronal death: recruitment of programmed necrosis and autophagy: oxidative stress and recruitment of autophagy to brain cell death"*; tenuto dal Professor Philip Beart, (Florey Neuroscience Institutes, University of Melbourne, Parkville, Australia); Dipartimento di Scienze Mediche;
2. *"Neuronal death: recruitment of programmed necrosis and autophagy: brain, brain quite contrary how do you neurones die? programmed cell death"*; tenuto dal Professor Philip Beart,

(Florey Neuroscience Institutes, University of Melbourne, Parkville, Australia); Dipartimento di Scienze Mediche;

3. “*Molecular control of human fetal globin expression: towards a potential cure for β -thalassemia and sickle cell anemia*”; tenuto dal Prof. Sjaak Philipsen, (erasmus mc-cell biology, dr. molewaterplein 50, 3015 ge rotterdam the netherlands homepage: http://www.erasmusmc.nl/medical_genetics/); Dipartimento di Scienze Mediche;

4. “*Next generation sequencing in T-ALL*”; tenuto dal Dr. Kim De Keersmaecker, (VIB Center for the Biology of Disease Center for Human Genetics, KU Leuven - Campus Gasthuisberg O&N4, Herestraat 49 – box 602, 3000 Leuven, Belgium); Dipartimento di Scienze Mediche;

5. “*IFI16: innate recognition of double-stranded DNA - and beyond*”; tenuto dal Prof. Søren Riis Paludan, (Department of Biomedicine, Aarhus University, Denmark); Dipartimento di Scienze Mediche;

6. “*Recent Advances in Hematopoietic Stem Cell Gene Therapy: from microRNA Regulation to Targeted Gene Transfer*”; tenuto dal Prof. Luigi Naldini, (San Raffaele, Telethon Institute for Gene Therapy (HSR-TIGET) Via Olgettina, 58 - 20132 Milan - ITALY); Dipartimento di Scienze Mediche;

7. “*High-throughput Biochemical Target Investigation Unveils a Novel Function of miR-21 as a Negative Modulator of Signal Transduction in T-lymphocytes*”; tenuto dal Prof. Pino Macino, (Professor of Biology, Dipartimento di Biotecnologie Cellulari ed Ematologia, Università degli Studi di Roma "La Sapienza" Viale Regina Elena 324, 00161 Rome Italy); Dipartimento di Scienze Mediche;

8. “*Peripheral T-cell lymphoma: from biology to clinical management*”; tenuto dal Prof. Pier Paolo Piccaluga, (Università di Bologna); Dipartimento di Scienze Mediche;

9. “*Convivere con la Leucemia Mieloide Cronica*”; tenuto dal Prof. Gianluca Gaidano, (Università del Piemonte Orientale); Dipartimento di Scienze Mediche;

10. “*Numerical simulations as virtual microscope at the nanoscale: some examples with dendritic molecules*”; tenuto dal Prof. Andrea Dadani, (Chief of the Laboratory of Applied Mathematics and Physics- LAMFI, Department of Innovative Technologies-DTI, University of Applied Science of Southern Switzerland-SUPSI, Lugano, CH); Dipartimento di Scienze Mediche;

11. “*Microparticles as novel effectors in Inflammation*”; tenuto dal Prof. Mauro Perretti, (William Harvey Research Institute, Barts and The London School of Medicine, Queen Mary University of London, London, UK); Dipartimento di Scienze Mediche;

12. “*Implicazioni mediche delle patologie odontostomatologiche di carattere infettivo-infiammatorio*”; tenuto dal tenuto dal Dr. Roberto Abundo; Dipartimento di Scienze Mediche;

13. “*Developing strategies for tissue specific targeting*”, tenuto dal Prof. Costantino Pitzalis, (Barts and the London School of Medicine); Dipartimento di Scienze Mediche;

14. *“Role of Diacylglycerol kinases in the control of T cell activation and differentiation programs”*, tenuto dal Prof. Isabel Merida, (Centro Nacional de Biotecnologia, Madrid); Dipartimento di Scienze Mediche;
15. *“Molecular classification of multiple myeloma”*, tenuto dal Prof. Antonino Neri, (Università degli Studi di Milano); Dipartimento di Scienze Mediche;
16. *“Giornata delle biotecnologie mediche”*, tenuto da:
Dott. Antonio Boniolo – Vice Presidente Diasorin S.p.A.
Dott.ssa Francesca Gilli - Presidente ANBI Piemonte
Prof. Cesare Emanuel - Presidente di Enne3 l’Incubatore di impresa di Novara
Dott.ssa Elena Rainero, (Beatson Cancer Institute, Glasgow, UK)
Dott.ssa Deborah Locarno - Diasorin Research Center – Antibody Development Unit
Dott.ssa Silvia Rasi - Assegnista di ricerca - Laboratorio di Ematologia – Dipartimento di Medicina Traslazionale – Università del Piemonte Orientale;
Dipartimento di Scienze Mediche;
17. *“Signalling pathways controlling integrin trafficking during invasion”*, tenuto dalla Dott.ssa Elena Rainero, (Beatson Cancer Institute, Glasgow, UK); Dipartimento di Scienze Mediche;
18. *“Exosomes Shuttle RNA”*, tenuto dal Prof. Lötval J., (Department of Internal Medicine, Sahlgrenska Academy, University of Gothenburg); Dipartimento di Scienze Mediche;
19. *“Next-generation DNA sequencing and target arrays in the clinics”*, tenuto dal Dr. Paolo Fortina, (Department of Cancer Biology, Jefferson Genomics Laboratory, Kimmel Cancer Center, Thomas Jefferson University Jefferson Medical College, Philadelphia, PA, USA); Dipartimento di Scienze Mediche;
20. *“Hepatocellular Carcinoma, novel advances from genomics to treatment”*, tenuto dal Dr. Rohini Sharma, (Imperial College London, London, UK); Dipartimento di Scienze Mediche;
21. *“Galectins-carbohydrate binding protein: sweet or sour?”*, tenuto dal prof. Prof. Mauro Perretti, (William Harvey Research Institute, Barts and The London School of Medicine, Queen Mary University of London, London, UK); Dipartimento di Scienze Mediche;
22. *“Alpha-msh and the melanocortin system in inflammation”*, tenuto dal prof. Prof. Mauro Perretti, (William Harvey Research Institute, Barts and The London School of Medicine, Queen Mary University of London, London, UK); Dipartimento di Scienze Mediche;
23. *“The resolution of inflammation: players and targets”*, tenuto dal prof. Prof. Mauro Perretti, (William Harvey Research Institute, Barts and The London School of Medicine, Queen Mary University of London, London, UK); Dipartimento di Scienze Mediche;
24. *“Magical Power of d-block Transition Metal Catalysis for a Prosperous and Sustainable World in the 21st Century and Beyond”*, tenuto dal Prof. Ei-Ichi Negishi, (Premio Nobel per la Chimica; Università di Purdue, Indiana, USA); Aula Magna Perrone;

25. “*New trends in allergy and immunology*”, tenuto dal Prof. Joseph A. Bellanti, (Professor of Pediatrics and Microbiology-Immunology Director, International Center for Interdisciplinary Studies of Immunology Georgetown University School of Medicine); Dipartimento di Scienze Mediche;

26. “*La rivoluzione genetica nella sclerosi laterale amiotrofica*”, tenuto dal Prof. Adriano Chiò, (Professore Associato Neurologia, Dipartimento di Neuroscienze, Università degli Studi, Torino); Dipartimento Scienze Mediche.

ATTIVITA' FORMATIVA SVOLTA AA 2011-12

Corso di tre giornate sul citofluorimetrio a flusso presso la sede della BD, con rilascio dell'attestato di partecipazione.

Corso d'inglese organizzato dalle ABES School, con rilascio dell'attestato di partecipazione.

CONGRESSI FREQUENTATI AA 2011-2012

8th International Congress on Autoimmunity; Granada, Spagna 9-13 Maggio 2012

COMUNICAZIONI ORALI A CONGRESSI AA 2011-12

8th International Congress on Autoimmunity, Granada, Spagna, 9-13 Maggio, 2012

“High levels of the soluble urokinase plasminogen activator receptor in patients with autoimmunity/lymphoproliferation due to defective fas function”

Clemente N, Vaschetto R, Boggio E, Dianzani U and Chiocchetti A.

ELENCO DEI SEMINARI FREQUENTATI AA 2012-2013

1. “*Cardiovascular risk in nephrology, dialysis and transplantation: combine the results of the research to the needs of clinical practice*”, tenuto dal Prof. John Strippoli University of Sydney School of Public Health, Australia, Mario Negri Sud Consortium, Italy University of Bari, Italy;

2. “*Stem/progenitor cell transplantation in the rat: A powerful tool to study tissue replacement in the normal and diseased liver*”, tenuto dal Dr. Michael Oertel, PhD Assistant Professor, School of Medicine Dept. of Pathology, University of Pittsburgh (USA);

3. “*Health properties of natural phytochemicals/neurochemical properties of rhinacanthus nasutus extracts/ Protection against UVB damage in skin cells by Thai herbs extracts*”, tenuto dal Prof. Dr. Tewin Tencomnao, Department of Clinical Chemistry Faculty of Allied Health Sciences Chulalongkorn University, Bangkok (Thailand);

4. “*Heparan Sulfate: A versatile target for the development of new drugs*”, tenuto dal Dr. Giancarlo Ghiselli, President Glyconova Srl, Startup Bioindustry Park "Silvano Fumero" , Colletterto Giacosa, Turin;
5. “*Cytotoxic potential of plasmacytoid dendritic cells in autoimmune diseases*”, tenuto dal Prof. Silvano Sozzani, Department of Molecular and Translational Medicine, University of Brescia;
6. “*Cancer in the post-transplant: emerging issues and new opportunities to care*”, tenuto dalla Prof.ssa Emanuela Vaccher , Medical Oncology A, Oncological Referral Center, Aviano IRCCS, San Raffaele del Monte Tabor Foundation, Milan;
7. “*Red blood cells as carriers for magnetically targeted delivery of drugs*”, tenuto dal Dr. Hans Bäumler, Head of the Research Department, Institute of Transfusion Medicine, Berlin - Brandenburg Center for Regenerative Therapies Charité – Universitätsmedizin, Berlin;
8. “*Interleukin-33: a novel player in chronic intestinal inflammation*”, tenuto dal Dr. Luca Pastorelli Department of Biomedical Sciences for Health, IRCCS Policlinico San Donato San Raffaele del Monte Tabor Foundation, Milan;
9. “*Autophagy and human disease; model Cystic Fibrosis*”, tenuto dal Prof. Luigi Maiuri, University of Foggia, European Institute for Research in Cystic Fibrosis, Division of Genetics and Cell Biology, IRCCS S. Raffaele Milan;
10. “*Experimental and Clinical Applications of polychromatic cytometry and multi-purpose*”, tenuto dal Prof. Andrea Cossarizza, University of Modena and Reggio Emilia;
11. “*Glioblastoma stem cell biology and its implications in cancer therapy*”, tenuto dalla Dr.ssa Giuliana Pelicci, Director of 'Unit "Biology and signal transduction of normal neural stem cells and cancer cells" Department of Experimental Oncology, European Institute of Oncology in Milan;
12. “*MRNA & Genome Editing*”, tenuto dal Dr. Angelo Lombardo San Raffaele Telethon Institute for Gene Therapy (HSR-TIGET) Milan;
13. “*Molecular interactions of histone modification and de novo DNA methylation*”, tenuto dal Dr. Kyung-Min Noh, PhD, Rockefeller University, New York, NY (USA);
14. “*Preventing cancer with vaccines*”, tenuto dal Dr. Lacopo Baussano, University of Eastern Piedmont , IARC Lyon;
15. “*Mechanisms of chronic inflammation and immune-regulation in infections and tumors*”, tenuto dal Prof. Vincenzo Barnaba, La Sapienza University of Rome;
16. “*Helps: biomimetic polypeptides for biomedical applications*”, tenuto dal Dr.ssa Antonella Flag, Department of Life Sciences, University of Trieste;
17. “*The Nrf2 transcription factor in disease, aging and stem cell function*”, tenuto dal Prof. Dirk Bohmann, Professor of Genetics, Department of Biomedical Genetics, University of Rochester Medical Center, Rochester, NY (USA);

18. “*TLR2 and CD44 in the modulation of experimental MS: direct and indirect effects on autoreactive T cells*”, tenuto dal Prof. Francesco Ria Catholic University of the Sacred Heart, Rome;
19. “*Searching for novel genes and microRNAs inducing myocardial protection and regeneration*”, tenuto dal Dr. Mauro Giacca, MD, University of Trieste, Director of International Centre for Genetic Engineering and Biotechnology, Trieste;
20. “*Alcohol, Cigarette Smoking and Multiple Sclerosis: the results from a case control study*”, tenuto dal Dr. Andrej Ivashinka, PhD in Clinical and Experimental Medicine, XXV CYCLE;
21. “*T cell antigen receptor: a journey through early and late signaling*”, tenuto dal Prof. Oreste Acute, Professor in Immunology, Dunn School of Pathology, Oxford University;
22. “*Role of DNA sensor IFI16 in the development of autoimmunity: clinical and molecular studies*”; tenuto da Valeria Caneparo, Ph.D. in Clinical and Experimental Medicine, XXV CYCLE.

CONGRESSI FREQUENTATI AA 2012-2013

AutoAntibodies Workshop 2013, Novara, Italia, 22-23 Marzo, 2013;

IRCAD Congress, Research on autoimmune diseases “from bench to bedside”, Novara, Italia, 6 Dicembre, 2012.

PUBBLICAZIONI

- *IL-17 protects T cells from apoptosis and contributes to development of ALPS-like phenotypes.*
Boggio E, **Clemente N**, Mondino A, Cappellano G, Orilieri E, Gigliotti C.L, Toth E, Ramenghi U, Dianzani U, and Chiocchetti A.
Blood. 2013. Under submission.
- *Variations of the UNC13D gene in patients with autoimmune lymphoproliferative syndrome.*
Aricò M, Boggio E, Cetica V, Melensi M, Orilieri O, **Clemente N**, Cappellano G, Buttini S, Soluri MF, Comi C, Dufour C, Pende D, Dianzani I, R. Ellis S, Pagliano S, Marcenaro S, Ramenghi U, Chiocchetti A and Dianzani U.
PLoS One. 2013 Jul 1;8(7):e68045.
- *Triggering of B7h by the ICOS modulates maturation and migration of monocyte-derived dendritic cells.*
Occhipinti S, Dianzani C, Chiocchetti A, Boggio E, **Clemente N**, Gigliotti CL, Soluri MF, Minelli R, Fantozzi R, Yagi J, Rojo JM, Sblattero D, Giovarelli M and Dianzani U.
J Immunol. 2013 Feb 1;190(3):1125-34.
- *The -346T polymorphism of the SH2D1A gene is a risk factor for development of autoimmunity/lympho-proliferation in males with defective Fas function.*

Boggio E, Melensi M, Bocca S, Chiocchetti A, Comi C, **Clemente N**, Orilieri E, Soluri MF, D'Alfonso S, Mechelli R, Gentile G, Poggi A, Salvetti M, Ramenghi U and Dianzani U. *Hum Immunol*. 2012 May;73(5):585-92.