



Alma Mater Studiorum – Università di Bologna

**18-20 SETTEMBRE 2024**

LA RICERCA DEI DOTTORATI DIMEC

# LEARN & SHARE 2024

PRESENTAZIONE POSTER E DISCUSSIONE DEI RISULTATI

**18 SETTEMBRE**

@AULA ABSIDALE SANTA LUCIA

INAUGURAZIONE EVENTO

PRESENTAZIONI SELEZIONATE DEI  
DOTTORANDI DEL TERZO ANNO

ORARIO 15 – 17.30

**19 e 20 SETTEMBRE**

@AULA MAGNA e BARBARA  
PADIGLIONE 5

PRESENTAZIONE POSTER DEGLI  
STUDENTI DEL SECONDO ANNO

DISCUSSIONE RISULTATI DEI  
DOTTORANDI DEL TERZO ANNO

ORARIO 9 - 18

SEGUICI SU  
TEAMS il 19 e  
20/09



INGRESSO LIBERO FINO AD ESAURIMENTO POSTI

<https://www.unibo.it/learnshare2024>

I Corsi di Dottorato del DIMEC sono lieti di presentare l'evento "Learn & Share", giunto alla sua quarta edizione. Si tratta di un'importante occasione per i dottorandi di esporre e discutere l'avanzamento dei propri progetti di ricerca. La presentazione dei risultati, in forma di poster per i dottorandi del secondo anno e di presentazione orale per quelli del terzo anno, oltre ad essere propedeutica al passaggio d'anno, rappresenta un'opportunità per promuovere nuove collaborazioni e sinergie, essenziali per arricchire il percorso di ciascun dottorando. I migliori poster saranno premiati, in riconoscimento dell'impegno dei nostri giovani ricercatori. Nella giornata di apertura avremo l'onore di ospitare due relatori d'eccezione di respiro internazionale, che saranno fonte di grande ispirazione per tutti i dottorandi e i partecipanti.

Learn & Share & Show: l'evento avrà spazio divulgativo anche sui siti social del DIMEC.

**Vi aspettiamo numerosi per condividere idee, esperienze e costruire insieme il futuro della nostra comunità accademica!**

## DISCUSSIONE dei RISULTATI DOTTORANDI DEL TERZO ANNO

**18 settembre 2024**

**Aula Absidale Santa Lucia**

**14:45 Apertura**

**15:00 Saluti introduttivi**

*Prof. Gianandrea Pasquinelli* Direttore del Dipartimento di Scienze Mediche e Chirurgiche (DIMEC)

*Dott.ssa Chiara Gibertoni*, Direttrice Generale di IRCCS Azienda Ospedaliero-Universitaria di Bologna

*Prof. Alberto Credi*, Prorettore alla ricerca

*Prof. Marco Carricato*, Prorettore ai dottorati

*Prof. Marco Seri* Direttore Scientifico di IRCCS Azienda Ospedaliero-Universitaria di Bologna

**Opening Lecture (15:15- 15:45)**

***Dott.ssa Alessandra Boletta***

**My journey in research: from bench to bed (and back) in renal disorders**

*IRCCS Ospedale San Raffaele*

## Presentazioni scelte dei dottorandi

### Sessione unica (15.45-16:45) - Moderatori: Coordinatori dei dottorati

1. Exploiting glucocorticoid receptor antagonization to restore NRG1-induced cardiomyocyte proliferation and regeneration. **Silvia Da Pra**
2. Donor derived cell-free DNA is associated with antibody-mediated rejection in patients with heart transplantation. **Bianca De Nicolo**
3. Optimizing environmentally sustainable approaches for liquid biopsy in ovarian cancer. **Beatrice Cavina**
4. The role of GDF15 in aging and age-related diseases (ARDs). **Antonio Chiariello**
5. Development and Pre-Clinical Testing of Sensorized Crutches for Comprehensive Gait Analysis in Neurological and Orthopedic Patients. **Valerio Antonio Arcobelli**

### Keynote Lecture (17.00-17.30)

#### Introduce Carlo Ventura

#### **Michael Levin, Ph. D.**

### The bioelectric interface to the intelligence of the body: the future of biomedicine

*Wyss Institute at Harvard University, Distinguished Professor, Vannevar Bush Chair, Tufts University Department of Biology, Director of the Allen Discovery Center at Tufts, and Tufts Center for Regenerative and Developmental Biology*

## 19 settembre 2024

### 8:30 Registrazione partecipanti e affissione poster

#### I sessione Aula Magna Pad.5 (9:00-10:40) - Moderatori: Pier Paolo Piccaluga, Arianna Aceti, Tommaso Pippucci

1. Multiomics data integration of AML cases to identify immunogenic profiles. **Davide Angeli**
2. Valutazione dei cambiamenti morfologici dell'aorta e degli endograft nei pazienti sottoposti a trattamento endovascolare per aneurisma dell'aorta attraverso lo studio di nuovi indici predittivi derivati da modelli anatomici 3D. **Antonino Maria Logiacco**
3. Amiloidosi cardiaca: profilo emodinamico e valore prognostico. **Giulia Saturi**
4. Preservazione del graft cardiaco mediante perfusione normotermica ex-vivo: esperienza di singolo centro. **Gregorio Gliozzi**
5. Assessing Anatomical Severity and Clinical Risk in Ebstein's Anomaly: a Cardiovascular Magnetic Resonance Study. **Giulia Pasqualin**
6. Clinical and Morphological Features of Pediatric-Onset Dilated Cardiomyopathy Patients and the Prognostic Impact of Genetic Diagnosis. **Rossana Zanoni**
7. Nutritional Modulation and Support in Pediatric Patients Undergoing Hematopoietic Cell Transplantation. **Francesco Venturelli**

#### I sessione Aula Barbara Pad.5 (9:00-10:40) - Moderatori: Emi Dika, Gastone Castellani

1. Drug and probiotics-based intervention strategies for the restoration of gut microbiome dysbiosis. **Mariachiara Mengoli**
2. Activation of ALK signaling pathway induces DNA damage response in Colorectal cancer. **Cinzia Girone**
3. Diagnostic performance of several indirect and direct biomarkers of fibrosis and Fibroscan-based score for the detection of liver disease severity in patients with metabolic dysfunction-associated steatotic liver disease (MASLD). **Filippo Gabrielli**
4. Trapianto di fegato per metastasi epatiche non resecabili di origine coloretale. **Andrea Laurenzi**

5. Molecular Profiling and Metabolic Dysregulation in Esophageal Adenocarcinoma. **Erica Cataldi Stagetti**
6. Transcription factor FOXD1 and miRNA-204-5p play a major role in glycosyltransferase B4GALNT2 downregulation in colon cancer tissues. **Martina Duca**
7. Metabolic dysfunction-associated liver disease: non-invasive assessment of disease progression. **Madalina- Gabriela Taru**
8. The role of gender differences in tissue biophysical properties in osteoarthritis progression. **Francesca Barile**

#### 10.40 – 11.10 Coffee Break

#### II sessione Aula Magna Pad.5 (11.10-13:00) - **Moderatori:** Paolo Fais, Elena Bonora, Gabriele D'Uva

1. Key molecular pathways in mammalian cell proliferation and differentiation. **Francesca Sacchi**
2. The role of invasive hemodynamic evaluation in the management of patients supported with left ventricular assist devices (LVAD). **Mario Sabatino**
3. Development of novel point-of-care devices for cardiovascular diseases. **Farzad Rahbar Koui Baran**
4. Elastomers with tuneable degradation as small diameter blood vessel substitutes for peripheral artery disease. **Edoardo Bondi**
5. Hyperspectral imaging in cardiac regeneration processes. **Martina Marcuzzi**
6. Clinical outcomes and characterization of the autologous adipose tissue harvested with superficial enhanced fluid fat injection method for treatment of diabetic foot ulcer undergoing minor amputation (SEFFIDiFA trial). **Nicola Leone**
7. Genomic characterisation of visceral sarcomas with a focus on cardiac sarcomas. **Livia Gozzellino** (online)
8. Impatto dell'isterectomia sulla qualità della vita nelle pazienti sottoposte a intervento chirurgico mininvasivo per endometriosi profonda. **Eugenia Degli Esposti**

#### III sessione Aula Barbara Pad.5 (11.10-13:00) - **Moderatori:** Sabato Mellone, Ivana Kurelac, Renato Serracchioli

1. La valutazione dei servizi sanitari applicata a setting di Assistenza Territoriale: il caso di studio dell'Azienda USL della Romagna. **Chiara Reno**
2. Analisi genomica, trascrittomica e metabolomica della trisomia 21. **Beatrice Vione**
3. Application and Development of an Artificial Intelligence based Multiparametric Malignancy Index (MMI) for interpretation of 3T Multiparametric Prostate MRI. **Fabio Ferroni**
4. Whole Body MRI (WB- MRI) in patients affected by monoclonal plasma cell disorders. **Alice Rossi**
5. The role of PARP inhibitors in the cross-talk between DNA damage and activation of the cGAS/STING immune response signaling in Ewing sarcoma cells. **Marianna Carrabotta**
6. The impact of environmental pollutants on human DNA methylation variability in the Italian landscape. **Giorgia Bolognesi**
7. Recidiva post trapianto delle nefropatie glomerulari. **Claudia Bini**

#### PAUSA PRANZO e VISIONE POSTER (13.00 – 14.30)

#### III sessione Aula Magna Pad.5 (14.30-16:10) - **Moderatori:** Mattia Lauriola, Marco Palanca, Luigi Fontana

1. Post-Transplant Bone Disease: therapeutic and diagnostic process. **Francesco Tondolo**

2. Valutazione dell'impatto sulla qualità di vita, dei fattori predittivi e degli outcomes terapeutici in pazienti affetti da orticaria cronica: studio osservazionale retrospettivo nella real-life. **Federica Filippi**
3. High-Intensity Focused Ultrasound (HIFU) ablation of low/favourable-intermediate risk Prostate Cancer: oncological and functional results. **Amelio Ercolino**
4. Emangiomi infantili special sites: diagnosi, complicanze e gestione terapeutica. **Miriam Leuzzi**
5. Multi-omics approach for improving accuracy and applicability of molecular risk stratification in patients with endometrial cancer. **Antonio Raffone**
6. Development of a predictive model of pathogenic BRCA1/2 variants in ovarian cancer patients based on clinical-pathological features. **Giovanni Innella**
7. Studio osservazionale prospettico sull'efficacia e la tollerabilità della Clormetina gel nel trattamento della Micosi Fungoide. **Alba Guglielmo**
8. Machine aided diagnosis and melanoma: histopathological findings. **Giulia Veronesi**

### III sessione Aula Barbara Pad.5 (14.30-16:10) - **Moderatori:** *Alessandro Broccoli, Marcello Lanari*

1. Two-in-One Therapy: Insulin-Producing and Immune-Modulating Perinatal Cell Spheroids for Type 1 Diabetes. **Francesca Paris**
2. Il Caso Sars-Cov-2: Il Ruolo Della Sorveglianza Ambientale. **Simona Spiteri**
3. Milk whey as a cell culture supplement: alternative and sustainable reuse of a food chain waste product. **Maria Sofia Semprini**
4. From prescription to pollution: the environmental impact of medicines on surface water. **Valentina Giunchi** (online)
5. Chemical and physical stimuli to modulate biological properties of human mesenchymal cells. **Luca Pampanella**
6. Imagine-guide surgery in the treatment of rectal cancer: virtual (VR) and augmented reality (AR) in the clinical practice. **Angela Belvedere**
7. Pediatric Pulmonary Arterial Hypertension - Combination Therapy. **Ilenia Magnani**
8. Comportamento di malattia e consumo di antibiotici: il rapporto tra patologie dermatologiche, alterazione del microbiota e caratteristiche psicologiche. **Paola Castellano**

### 16.10 – 17.30 Poster & Coffee *Pad.5 e Pad.11*

## 20 settembre 2024

### I sessione Aula Magna Pad.5 (9:10-10:30) - **Moderatori:** *Carmine Pizzi, Davide Gori, Carmen Miano*

1. PD-L1 and IFN- $\gamma$  modulate non-small cell lung cancer cell plasticity associated to immunotherapy primary resistance. **Stefania Angelicola**
2. Predicting Progression-Free Survival in Advanced Non-Small cell Lung Cancer patients: an AI-based radiomic pipeline. Preliminary results. **Davide Donner**
3. Disrupting Neuregulin 1/HER3 axis to neutralize EGFR-compensatory pathways in Non-Small Cell Lung Cancer. **Alessandra Morselli**
4. Detection of circulating tumour cells, spread through air space and lymph-nodal micrometastasis in patients with lung cancer undergoing surgical resection. **Pietro Bertoglio**
5. Toxins Removal and modulation of inflammatory state using different dialyzer in patients with End Stage Renal Disease. **Fulvia Zappulo**
6. Can 68-Ga Dotatoc PET-CT Predict Meningioma Grading? **Lorena Picori**
7. Unveiling the Effects of Medications on Human Actions and Personality. **Michele Fusaroli** (online)

8. Basi biologiche della disabilità intellettiva nei bambini con sindrome di Down. **Giuseppe Ramacieri**

**I sessione Aula Barbara Pad.5 (9:10-10:30) - Moderatori:** *Fabio Piscaglia, Carla Bini, Filippo Pirani*

1. Environmental impact of pathology laboratories. Sentinel lymph-node diagnostic methodologies: a case study. **Guglielmo Rambaldelli**
2. Co-polymer based delivery system for the ocular surface and cornea diseases treatments. **Gloria Astolfi**
3. Clinical and pathophysiological implications of the interplay between frailty, liver function, physical performance, and sleep: focus on older adults. **Francesco Palmese** (online)
4. Cu-based Thin Foils for High-Touch Applications: From Durability to Antimicrobial Efficiency. **Luca Lorenzetti**
5. Enhancing fall risk assessment through digital mobility biomarkers in real-world monitoring of community-dwelling older adults. **Jose Luis Albites Sanabria**
6. Technological advances in external beam radiotherapy. Study of new treatment strategies. **Carlo Algranati**
7. Improving general well-being and promoting an active lifestyle among employees through immersive virtual reality-enhanced physical activity. **Alessio Mocco**

**10.30 – 11.15 Coffee Break**

**II sessione Aula Magna Pad.5 (11:15-13:00) - Moderatori:** *Antonio Farina, Alessandro Silvani, Dal Monte Paola*

1. Adaptive responses triggered by anti-metabolic therapy in cancer. **Sara Milioni**
2. Levator ani muscle co-activation is associated with breech presentation in nulliparous women at term. **Elena Brunelli**
3. Modalità del parto nelle gravidanze PMA. **Anna Seidenari**
4. A liquid biopsy approach for the genetic characterization of cancer of unknown primary. **Ilaria Pace**
5. Utilizzo di metodi alternativi nello studio dei contaminanti emergenti per l'identificazione di meccanismi d'azione nella cancerogenesi non genotossica. **Gelsomina Pillo**
6. HPV circulating tumor DNA as a marker to monitor response to pembrolizumab and vorinostat combination in patients with advanced HPV-related squamous cell carcinoma. **Daria Maria Filippini**
7. Relations between Built environment and Cancer - Modeling the structural relationships between physical features of the built environment (BE), stress exposure and cancer outcomes. **Rafael Jamie William Salas Carretero**

**II sessione Aula Barbara Pad.5 (11:15-13:00) - Moderatori:** *Ilaria Tarricone, Stefano Salvioli*

1. Electrical Characterization and Efficacy Assessment of a Cold Atmospheric Plasma System for Closed Environment Sanitization. **Silvia Giuditta Scaltriti**
2. Cold plasma systems for bioaerosol decontamination: scale-up of a portable room-scale device. **Pasquale Isabelli**
3. Novel approaches for remote monitoring in patients with heart failure. **Alberto Spadotto**
4. In Silico model to predict the long-term stability of cementless hip stems with osteoinductive coatings, informed by animal model calibration. **Sofia Baroni**
5. Anatomical-based design of customized osseointegrated femoral prosthetic components for amputees. **Valentina Betti**
6. Deep learning-based identification of pathological characteristics influencing head and neck cancer patients' prognosis. **Michele Sassano**
7. Reusage of Existing Tools to Help Developing Personalized Medicine Frameworks. **Riccardo Biondi**

**PAUSA PRANZO e VISIONE POSTER (13.00 – 14.30)**

### III sessione Aula Magna Pad.5 (14.30-15:45) - **Moderatori:** Caterina Garone, Francesco Tovoli

1. Analysis of inflammatory, metabolic and nutritional parameters as prognostic factors in locally advanced cervical cancer. **Martina Ferioli**
2. Leveraging GANs for Enhanced Gene Expression Data Generation: Advancing Multiple Myeloma Research through Synthetic Data Augmentation. **Giuseppe Buzzanca**
3. Identification of prognostic and predictive biomarkers in lymphoma patients treated with CD19 CAR-T cell therapy. **Maria Naddeo** (online)
4. Integrative Multi-Omics and Synthetic Data Technologies in Oncohematology. **Nicolas Riccardo Derus**
5. LLM nei Linfomi non Hodgkin B aggressivi. **Francesco Malaspina**
6. Federated Learning for onco-haematological diseases. **Francesco Casadei**
7. Indice prognostico clinico-molecolare nei linfomi diffusi a grandi cellule B. **Costantino Riemma**

### III sessione Aula Barbara Pad.5 (14.30-15:45) - **Moderatori:** Arrigo Cicero, Alessandra Gambineri

1. Bone marrow aspirate concentrate intra-articular injection combined with subchondral injections versus intra-articular injection alone for the treatment of knee osteoarthritis: results of a double-blind randomized trial. **Luca Andriolo**
2. La tecnica double-row suture bridge non mostra risultati clinici e radiologici superiori rispetto alla tecnica single-row in seguito a riparazione artroscopica di lesioni < 2 cm della cuffia dei rotatori ad un follow-up minimo di 24. **Vito Gaetano Rinaldi**
3. Evaluation of agents targeting mechanisms involved in repair of drug-induced DNA damages in osteosarcoma. **Leonardo Fantoni**
4. Analysis and validation of gene polymorphisms in osteosarcoma. **Chiara Casotti**
5. Uncovering the association of extracellular vesicle cargo with chemoresistance in osteosarcoma. **Joaquin Jurado Maqueda**
6. Pencil Beam Scanning Proton Therapy reirradiation of recurrent rectal adenocarcinoma: validation of a workflow, dosimetric comparison, toxicities, and preliminary outcomes. **Irene Giacomelli**
7. Biological Estimate of Safe Packaging through 3D Bioprinted Models. **Mariangela Rea**

### 15.45 – 16.00 Coffee Break

### IV sessione Aula Magna Pad.5 (16.10-17.00) - **Moderatori:** Antonio Gangemi, Matteo Cescon

1. Studio delle caratteristiche cliniche e dell'outcome di pazienti affetti da Linfoma non-Hodgkin diffuso a grandi cellule B ricaduti/refrattari trattati con polatuzumab vedotin associato a rituximab (+/- bendamustina) ad uso compassionevole. **Matteo Carella**
2. Disegno di nuovi approcci terapeutici personalizzati per il Linfoma non Hodgkin B Diffuso a Grandi Cellule. **Alice Morigi**
3. Skeletal disease assessment in Newly Diagnosed Multiple Myeloma: the role of innovative imaging techniques [68Ga]-PSMA PET/TC and Whole-body Diffusion Weighted Magnetic Resonance combined with [18F]-FDG PET/TC. **Gabriella De Cicco**
4. Investigating novel prognostic factors in patients with acute myeloid leukemia: absolute lymphocyte count and immune transcriptomic bone marrow profile. **Gianluca Cristiano**

### IV sessione Aula Barbara Pad.5 (16.10-17) - **Moderatori:** Daniela Turchetti, Duccio Maria Cordelli

1. 3D muscle models to investigate LGMDD2 transportin 3 related: insights into myogenic processes and contractile dysfunction. **Serafina Pacilio**
2. Biomechanical and clinical evidence of vertebral metastases to predict the risk of fracture. **Giulia Cavazzoni**
3. Biomechanical rationale and testing of femoral prosthetic component for amputees. **Giulia Galteri**
4. Effect of neurodegenerative comorbidities on the risk of revision of knee joint replacements. **Alessandro Panciera**



## **Faculty**

Prof. Niccolò Daddi *Coordinatore del Corso di Dottorato in Scienze cardio-nefro-toraciche*

Prof. Igor Diemberger *Coordinatore del Corso di Dottorato in Scienze e tecnologie della salute*

Prof.ssa Manuela Ferracin *Coordinatrice del Corso di Dottorato in Oncologia, ematologia e patologia*

Prof.ssa Susi Pelotti *Coordinatrice del Corso di Dottorato in Scienze mediche generali e scienze dei servizi*

Prof.ssa Bianca Maria Piraccini *Coordinatrice del Corso di Dottorato in Scienze chirurgiche e Tecnologie Innovative*

### Organizzazione:

Prof.ssa Mattia Lauriola

Prof. Gabriele D'Uva

Prof.ssa Emi Dika

Prof.ssa Katia Mattarozzi

Prof.ssa Carla Bini

Prof. Paolo Garagnani

Dott. Filippo Pirani

Dott. Marco Palanca

Prof. Davide Gori

Prof.ssa Ilaria Tarricone

Prof. Stefano Salvioli

Prof.ssa Caterina Garone

Prof. Francesco Tovoli

Prof. Arrigo Cicero

Prof.ssa Alessandra Gambineri

Prof. Antonio Gangemi

Prof.ssa Daniela Turchetti

Prof. Matteo Cescon

Prof. Pier Luigi Lollini

Prof. Duccio Maria Cordelli

### Moderatori:

Prof. Pier Paolo Piccaluga

Prof.ssa Arianna Aceti

Prof. Tommaso Pippucci

Prof.ssa Emi Dika

Prof. Gastone Castellani

Prof. Paolo Fais

Prof.ssa Elena Bonora

Prof. Gabriele D'Uva

Prof. Sabato Mellone,

Prof.ssa Ivana Kurelac

Prof. Renato Serracchioli

Prof.ssa Mattia Lauriola

Prof. Marco Palanca

Prof. Luigi Fontana

Prof. Alessandro Broccoli

Prof. Marcello Lanari

Prof. Antonio Farina

Prof. Carmine Pizzi

Prof.ssa Carmen Miano

Prof. Fabio Piscaglia

Prof.ssa Carla Bini

Prof. Filippo Pirani

Prof. Alessandro Silvani

Prof.ssa Dal Monte Paola

### Valutatori Poster:

Prof.ssa Emi Dika

Prof.ssa Mattia Lauriola

Prof. Carmine Pizzi

Prof. Pier Paolo Piccaluga

Prof.ssa Eva Negri

Prof. Fabrizio De Ponti

Prof.ssa Piera Versura

Prof. Michelangelo Fiorentino

Prof. Federico Chesani

Prof.ssa Stefania Varani

Prof. Rocco Maurizio Zagari

Prof.ssa Elena Bonora

Dott.ssa Serena De Matteis

Prof.ssa Michela Mazzetti

Prof. Davide Gori

Prof. Tommaso Pippucci

Prof.ssa Marianna Penzo

Prof. Alessandro Silvani

Dott.ssa Carmen Miano

Dott. Antonio Curti

Dott. Sabato Mellone