



Università
degli Studi di
Messina

DIPARTIMENTO DI SCIENZE BIOMEDICHE,
ODONTOIATRICHE E DELLE IMMAGINI
MORFOLOGICHE E FUNZIONALI



Seminari di Dipartimento BIOMORF – Ciclo 2022/1

Nel quarto ciclo di seminari abbiamo dato spazio ai Visiting Professor e Researcher invitati da membri del Dipartimento. L'obiettivo rimane quello di dare visibilità alla ricerca dipartimentale, in particolare alla sua dimensione internazionale, e di fornire un'occasione di interazione scientifica aperta a tutti i ricercatori dell'Ateneo.

Giovedì 19 maggio 2022, Ore 17.00 – 18.00

Aula Magna "Mario Teti" della Torre Biologica (Pad. G)

PRESENTAZIONE DELL'EVENTO

Prof. Sergio Baldari

(Direttore Dipartimento BIOMORF)

Prof. Andrea d'Avella

(Coordinatore Commissione Ricerca e Terza Missione BIOMORF)

Prof.ssa Concetta Crisafulli

(Proponente del Visiting Professor)

RELATORE

Prof. Antonio Drago – Visiting Professor

Aalborg University Hospital, Denmark

Big data in psychiatry. Artificial Intelligence, machine learning and clinical practice in the era of multiomics

The current advances in computer science allow for a Copernican Revolution in mental health diagnosis, treatment and planning. Extremely large digital datasets that allow for the computational identification of patterns, trends and association are classified as Big Data. Big Data is the ongoing reality in the more advanced hospitals in the world, as for example, the Massachusetts and the John Hopkins Hospitals. Artificial Intelligence and in particular Machine Learning are instrumental to extract practical solutions and new ideas from the current vast digital databases. The utilization of such approaches will challenge our current classification systems, will guide the clinical choices about treatment protocols and will eventually shape the way our services are organized. A relevant question related to the potential of this approach is the quality and the quantity of data that are the input to the system. Omics represent the current biological databases that gather the ongoing knowledge about the evolving known biology of mental disorders. The connection and integration of the different Omics as for example metabolomics, genomics, proteomics, microbiomics may grant the information network that allows for the precise description, classification and prognosis outlook of every single individual entering the hospital. The classic anamnestic and sociodemographic descriptions will complement and enrich the individual scenario. It is anticipated that individuals entering the hospitals in the near future will be assessed and treated according to the predictive power of the implementation of Artificial Intelligence and Machine Learning in the hospital's database. This Revolution requires an ongoing adaptation of the current laws that regulate mental health interventions. Such legislative processes already are in place and must be taken into account when designing the next generation mental health interventions, studies and services' organization.

Sarà possibile seguire l'evento anche sul Team "Seminari BIOMORF" (codice **r00tueq**)