PRIN MUR project 2022 - prot. 2022SC83XK

UNIVERSITÀ DEGLI STUDI DI NAPOLI
FEDERICO II

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TAKLPAT

Tackling effector contribution to cross-kingdom host virulence in fungal pathogens

FINAL MEETING
Wednesday, March 4, 2026 – 11:00 a.m.
Hosted by Plant Pathology Laboratory – Department of Environmental Biology, Sapienza University of Rome
Piazzale Aldo Moro 5, 00185 Rome, Italy

PROGRAM

10:30 | 10:45
Welcome & project overview
David Turrà - TAKLPAT Coordinator
Department of Agricultural Sciences – University of Naples "Federico II"

10:45 | 11:05
INVITED SPEAKER
Annarita Falanga

Department of Agricultural Sciences – University of Naples "Federico II"
Antimicrobial peptides for combating multidrug-resistant pathogens

11:05 | 11:25
INVITED SPEAKER
Massimo Reverberi, Marzia Beccacioli, Francesca Costantini, Elena Romanelli, Domenico Caputo
Department of Environmental Biology (DBA) – Sapienza University of Rome
Innovative portable tools for the detection of aflatoxigenic isolates of *Aspergillus* sect. Flavi in agricultural soils (PRIN Bando 2022 PNRR - prot. P2022CBHZK)

11:25 | 11:45
David Turrà, Annalisa Staiti, Valentino Guastaferro, Ivan Notaro, Marta Ranesi, Stefania Vitale
Department of Agricultural Sciences – University of Naples "Federico II"
TAKLPAT, UNINA - OVERVIEW OF THE ACTIVITIES AND RESULTS ACHIEVED IN THE PROJECT

11:45 | 12:05
Luigi Faino, Maria Chiara Ferrara
Department of Environmental Biology (DBA) – Sapienza University of Rome
TAKLPAT, UNIRO - OVERVIEW OF THE ACTIVITIES AND RESULTS ACHIEVED IN THE PROJECT

12:05 | 12:25
Matias Pasquali
Department of food, environmental and nutritional sciences (DeFENS) – University of Milan
TAKLPAT, UNIMI - OVERVIEW OF THE ACTIVITIES AND RESULTS ACHIEVED IN THE PROJECT

12:25 | 12:45
INVITED SPEAKER
Riccardo Baroncelli, Andrea Menicucci, Salvatore Iacono, Firas Hatoum, Chiara Fiorenzani
Department of Agricultural and Food Sciences (DISTAL) – University of Bologna
Giant transposable elements drove genome reorganization and host adaptation in Colletotrichum

12:45 | 13:15
DISCUSSION AND CONCLUSIONS

THE PROJECT
TAKLPAT (Tackling effector contribution to cross-kingdom host virulence in fungal pathogens) is a PRIN 2022 project investigating the molecular and functional determinants underlying "cross-kingdom" pathogenicity (the ability to infect evolutionarily distant hosts, such as plants and animals/humans) in three Fusarium species: F. oxysporum, F. verticillioides, and F. musae (pathogens of tomato, maize, and banana, respectively, but also reported as opportunistic/emerging human pathogens, particularly relevant in immunocompromised patients).
The project adopts a One Health approach, explicitly linking crop health, human health, and selective pressure (including from fungicides/antifungals) to understand how the same fungal evolutionary lineage can adapt to different niches/hosts and which factors—particularly effectors and regulatory circuits—support invasion, dissemination, and virulence. The aim is to produce a "roadmap" for identifying cellular targets and regulatory pathways exploitable both in agriculture (novel control strategies and breeding targets) and in clinical settings (new therapeutic targets and improved interpretation of susceptibility/resistance profiles).

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The conference will be accessible online at the following link
https://meet.google.com/fae-ifew-xoi

https://taklpat.com/
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