



# MICROBIAL SYNTHETIC BIOLOGY

SUMMER SCHOOL

TOOLS, PATHWAYS, AND APPLICATIONS FOR A SUSTAINABLE FUTURE AND PLASTIC UPCYCLING

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## TEACHING PLAN

BARI | 17 - 18 - 19 JUNE 2026

Aula Magna  
Department of Biosciences, Biotechnologies  
and Environment - University of Bari  
Campus - Via Orabona - BARI - ITALY



## JUNE 17th 2026

HOURS	EVENT	TEACHER
08:30 - 09:00	REGISTRATION	
09:00 - 10:00	WELCOME TO THE SCHOOL	<b>EVANGELOS TOPAKAS</b>   Coordinator of the Twinn4MicroUP project <b>GENNARO AGRIMI</b>   School Coordinator <b>LUIGI PALMIERI</b>   Director of the Dept. of Bioscience
10:00 - 11:00	SYNTHETIC BIOLOGY TOOLKITS FOR GENOME ENGINEERING - PART 1	<b>TIGRAN YUZBASHEV</b>   Rothamsted Research - United Kingdom
11:00 - 11:30	COFFE BREAK	
11:30 - 13:00	SYNTHETIC BIOLOGY TOOLKITS FOR GENOME ENGINEERING - PART 2	<b>TIGRAN YUZBASHEV</b>   Rothamsted Research - UK United Kingdom
13:00 - 14:00	LIGHT LUNCH	
14:00 - 16:30	APPLICATIONS AND ADVANTAGES OF YEAST SYNTHETIC BIOLOGY TOOLKITS - PART 1	<b>EVGENIYA YUZBASHEVA</b>   Both Strands Ltd - United Kingdom
16:30 - 17:00	COFFE BREAK	
17:00 - 18:00	APPLICATIONS AND ADVANTAGES OF YEAST SYNTHETIC BIOLOGY TOOLKITS - PART 2	<b>EVGENIYA YUZBASHEVA</b>   Both Strands Ltd - United Kingdom
19:00	GUIDED TOUR OF THE OLD TOWN OF BARI AND LIGHT DINNER	



## JUNE 18th 2026

HOURS	EVENT	TEACHER
08:30 - 11:00	REWIRING MICROBIAL METABOLISM THROUGH SYNTHETIC PATHWAYS AND GROWTH-COUPLED SELECTION STRATEGIES	<b>ENRICO ORSI</b>   Technical University of Denmark
11:00 - 11:30	COFFE BREAK	
11:30 - 13:00	APPLICATIONS OF SYNTHETIC BIOLOGY FOR PLASTIC UPCYCLING	<b>NICK WIERCKX</b>   Forschungszentrum Jülich – Germany
13:00 - 14:00	LIGHT LUNCH	
14:00 - 15:00	APPLICATIONS OF SYNTHETIC BIOLOGY FOR THE PRODUCTION OF BIO-BASED PLASTIC MONOMERS	<b>NICK WIERCKX</b>   Forschungszentrum Jülich – Germany
15:00 - 16:30	GENOME MINING AND CRISPR-ENABLED DISCOVERY OF MICROBIAL SPECIALIZED METABOLITES	<b>TILMANN WEBER</b>   Technical University of Denmark
16:30 - 17:00	COFFE BREAK	
17:00 - 18:00	HANDS-ON: NATURAL PRODUCTS GENOME MINING WITH ANTISMASH	<b>TILMANN WEBER</b>   Technical University of Denmark
18:00 - 19:00	PARTICIPANTS' TALK 1 - DISCUSSION	
19:30	SOCIAL DINNER	



## JUNE 19th 2026

HOURS	EVENT	TEACHER
09:00 - 11:30	WHOLE GENOME SYNTHESIS IN YEAST AND DEBUGGING GENETIC INTERACTIONS ALONG THE WAY - PART 1	<b>CHARLES BOONE</b>   University of Toronto - Canada
11:30 - 12:00	COFFE BREAK	
12:00 - 13:00	WHOLE GENOME SYNTHESIS IN YEAST AND DEBUGGING GENETIC INTERACTIONS ALONG THE WAY - PART 2	<b>CHARLES BOONE</b>   University of Toronto - Canada
13:00 - 14:00	LIGHT LUNCH	
14:00 - 15:30	THE QUEST FOR SYNTHETIC CELLS: FROM ORIGIN-OF-LIFE CHEMISTRY TO SOPHISTICATED INTEGRATED SYSTEMS – PART 1	<b>EMILIANO ALTAMURA</b>   University of Bari - Italy
15:30 - 16:30	THE QUEST FOR SYNTHETIC CELLS: FROM ORIGIN-OF-LIFE CHEMISTRY TO SOPHISTICATED INTEGRATED SYSTEMS – PART 2	<b>PAOLA ALBANESE</b>   University of Bari - Italy
16:30 - 17:00	COFFE BREAK	
17:00 - 18:00	PARTICIPANTS' TALK 2 - DISCUSSION	
18:00	END OF THE SCHOOL	