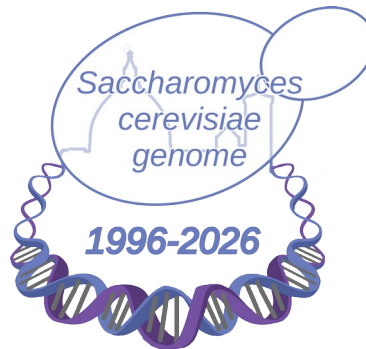




# LIFE WITH 6000 GENES

*celebrating 30 years since*

*the sequencing of the Saccharomyces cerevisiae genome*

Organizing committee:

Duccio Cavalieri, Terrance Cooper, Ed Louis, John Morrissey, Jens Nielsen, Irene Stefanini.

## **Life with 6000 genes-Celebrating 30years of the *Saccharomyces cerevisiae* genome sequence.**

The first complete sequence of the yeast genome was published and showcased worldwide in 1996. It was the first eukaryotic genome sequenced and the discovery served as a jumpstart for the sequencing of the human genome as well as of other fungal, plant and animal genomes.

From a technological standpoint the *S. cerevisiae* sequence was instrumental to the development of genome wide analysis technologies, such as DNA microarrays, Next generation Sequencing, and of the computational tools used today for interpreting genome wide data.

The conference celebrates this historic event and the scientists that made it happen, presenting the current state of yeast genomics research to specialists from all over the world, discussing the importance of moving from the genome of the type strain to pangenomics, and synthetic biology.

The conference will involve as speakers some of the most prominent scientists worldwide and demonstrate the importance of supporting studies on microbial models for the understanding of fundamental biological processes ranging from cancer to evolutionary genetics and genomics.

## **Preliminary program**

**31 August – 1 September 2026**

**August 31<sup>th</sup> 2026**

*Location: Sala Luca Giordano, Palazzo Medici Riccardi, Via Camillo Cavour 3, Florence*

|                                                |                                                                         |                                                                                                                                                 |
|------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 08:30 am – 09:00 am                            | Registration                                                            |                                                                                                                                                 |
| 09:00 am – 09:30 am                            | Welcome Ceremony                                                        | Duccio Cavalieri: SIMGBM & FEMS: (AISL-ICYGMB), Florence Town authorities, the Dean of Florence University, The members of organizing committee |
| <i>Chairs: Duccio Cavalieri &amp; Ed Louis</i> |                                                                         |                                                                                                                                                 |
| 09:30 am – 10:00 am                            | Bernard Dujon<br><i>Sorbonne University &amp; Institut Pasteur (FR)</i> | DNA sequencing in the early 1990s.                                                                                                              |
| 10:00 am – 10:30 am                            | Mark Johnston<br><i>Washington University (USA)</i>                     | The Accidental Genomicist: The importance of being in the right place at the right time.                                                        |
| 10:30 am – 11:00 am                            | Kenneth Wolfe<br><i>University College Dublin (IR)</i>                  | The origin of HO endonuclease and its role in Whole Genome Duplication.                                                                         |
| 11:00 am – 11:30 pm                            | Isak S. Pretorius<br><i>Macquarie University (AU)</i>                   | A renaissance in yeast genomics: sculpting the future of <i>Saccharomyces cerevisiae</i> and precision winemaking.                              |
| 11:30 pm – 12:00 pm                            | Terrance Cooper<br><i>UTHSC (USA)</i>                                   | Don't Mess in God's Backyard – Cloning Comes to Two Cities.                                                                                     |
| 12:00 pm – 12:20 pm                            | Charlie Boone<br><i>University of Toronto (CA)</i>                      | Mapping Genetic Networks and Cellular Phenotypes on a Genome-wide Scale in Yeast.                                                               |
| 12:20 pm – 12:50 pm                            | Brenda Andrews<br><i>University of Toronto (CA)</i>                     | Mapping Genetic Networks and Cellular Phenotypes on a Genome-wide Scale: from Yeast to Humans.                                                  |
| 12:50 pm – 01:10 pm                            | Steve Oliver<br><i>Oxford (UK)</i>                                      | How yeast made me the person I am.                                                                                                              |
| 01:10 pm                                       | <i>Conclusions and Walk to Rettorato – San Marco square</i>             |                                                                                                                                                 |

**August 31<sup>th</sup> 2026**

*Location: Aula Magna, Rettorato dell'Università degli Studi di Firenze, Piazza San Marco 4, Florence*

|                                                 |                                                        |                                                                             |
|-------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------------------------------|
| 01:30 pm – 02:30 pm                             | Lunch break                                            |                                                                             |
| <i>Chair: Marc Johnston and Irene Stefanini</i> |                                                        |                                                                             |
| 02:30 pm – 03:00 pm                             | Edward J. Louis<br><i>University of Leicester (UK)</i> | Sequencing subtelomeres: shedding light onto the dark matter of the genome. |
| 03:00 pm – 03:30 pm                             | Fred S. Dietrich                                       | A genome sequence of the species S.                                         |

|                                                                                                                                                     |                                                          |                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                     | <i>Duke University (USA)</i>                             | <i>cerevisiae</i> .                                                                                             |
| 03:30 pm – 04:00 pm                                                                                                                                 | Gilles Fischer<br><i>CNRS Paris (FR)</i>                 | Decoding yeast life cycle complexity from genomes.                                                              |
| 04:00 pm – 04:30 pm                                                                                                                                 | Coffee break                                             |                                                                                                                 |
| <i>Chair: Andrei Sibirny and Danilo Porro</i>                                                                                                       |                                                          |                                                                                                                 |
| 04:30 pm – 05:00 pm                                                                                                                                 | Michael Cherry&Co<br><i>SGD (USA)</i>                    | From Sequence to Knowledge: Thirty Years of the <i>Saccharomyces</i> Genome Database.                           |
| 05:00 pm – 05:30 am                                                                                                                                 | Johan Thevelein<br><i>KU Leuven (BE)</i>                 | The impact of the yeast genome on Biotechnology.                                                                |
| 05:30 pm – 06:00 pm                                                                                                                                 | Jens Nielsen<br><i>BioInnovation Institute (DK)</i>      | Systems biology of yeast metabolism.                                                                            |
| 06:00 pm – 06:15 pm                                                                                                                                 | Marco Vanoni<br><i>Milano Bicocca (IT)</i>               | From the genome sequence to modeling of biological functions: metabolism, growth and cell cycle.                |
| 06:15 pm – 06:30 pm                                                                                                                                 | Peter Raspor<br><i>University of Ljubljana (Slo)</i>     | The yeast timeline: breakthroughs that shaped modern life sciences and arts.                                    |
| 07:30 pm -10.30 pm                                                                                                                                  | Yeast Post Genomics award                                | & Conference Dinner                                                                                             |
| <b>September 1<sup>st</sup> 2026</b><br><i>Location: Aula Magna, Rettorato dell'Università degli Studi di Firenze, Piazza San Marco 4, Florence</i> |                                                          |                                                                                                                 |
| <i>Chairs: John Morrissey &amp; Teresa Rinaldi</i>                                                                                                  |                                                          |                                                                                                                 |
| 09:00 am – 09:30 am                                                                                                                                 | Sylvie Dequin<br><i>INRAE (FR)</i>                       | Horizontal gene transfer and adaptive evolution in wine yeasts: insights from the EC1118 genome.                |
| 09:30 am – 10:00 am                                                                                                                                 | Kevin Verstrepen<br><i>KU Leuven (BE)</i>                | Work with 6000 genes – understanding & exploiting the genomes of industrial yeasts.                             |
| 10:00 am – 10:30 am                                                                                                                                 | Ursula Bond<br><i>Trinity College Dublin (IR)</i>        | <i>Saccharomyces pastorianus</i> : past, present and the future...                                              |
| 10:30 am – 11:00 am                                                                                                                                 | Daniela Delneri<br><i>UMA (UK)</i>                       | <i>S. cerevisiae</i> and its hybrids.                                                                           |
| 11:00 am – 11:15 am                                                                                                                                 | Gianluigi Cardinali<br><i>University of Perugia (IT)</i> | <i>S. cerevisiae</i> Whole Genome Sequencing and the recognition of inter-specific hybrids in fungal evolution. |
| 11:15 am-11:30 am                                                                                                                                   | Jean Luc Legras<br><i>INRAE (FR)</i>                     | About wine yeast diversity: adaptation to grape must and its unexpected                                         |

|                                                                   |                                                                                                    |                                                                                                                                                              |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                   |                                                                                                    | consequences.                                                                                                                                                |
| 11:30 am – 11:45 am                                               | Vitor Costa<br><i>Universidade do Porto (PT)</i>                                                   | Leveraging the yeast genome to dissect conserved pathways in aging and disease.                                                                              |
| 11:45 am – 12:00 pm                                               | Paula Cristina Costa Alves Monteiro Ludovico<br><i>Universidade do Porto (PT)</i>                  | A glimpse into cell death mechanisms for sustainable yeast biotechnology: the MSCA doctoral network “Understanding and Postponing Yeast Cell Death (UPsYDe)” |
| 12:00 pm – 01:00 pm                                               | Lunch break                                                                                        |                                                                                                                                                              |
| <i>Chairs: Graziano Pesole (Elixir) &amp; Claudio De Virgilio</i> |                                                                                                    |                                                                                                                                                              |
| 01:00 pm – 01:30 pm                                               | Hiroshi Takagi<br><i>Naist (JP)</i>                                                                | 30 Years with Lovely Yeasts: Back to the Future.                                                                                                             |
| 01:30 pm – 04:00 pm                                               | Selected presentations                                                                             | Beyond the Yeast Genome                                                                                                                                      |
|                                                                   | Gennaro Agrimi<br><i>University of Bari (IT)</i>                                                   | Waste-derived Carbon utilization in <i>Yarrowia lipolytica</i> : quantitative insights for sustainable biotechnology.                                        |
|                                                                   | Angela Primavera<br><i>University of Bari (IT)</i>                                                 | Citrate homeostasis and trafficking in osmoadaptive response of <i>Saccharomyces cerevisiae</i> .                                                            |
|                                                                   | Roza Kucharczyk<br><i>Institute of Biochemistry and Biophysics PAS (PL)</i>                        | Post-Translational Modifications of ATP Synthase Modulate Mitochondrial Bioenergetics in Yeast.                                                              |
|                                                                   | Stefano Nenciarini<br><i>University of Florence (IT)</i>                                           | Identification and enrichment of extrachromosomal circular DNA (eccDNA) in <i>Saccharomyces cerevisiae</i> extracellular vesicles.                           |
|                                                                   | Luca De Martino<br><i>CNR - IBIOM, Bari (IT)</i>                                                   | Yeast genome-scale metabolic models as a framework for multi-omics integration and metabolomics interpretation.                                              |
|                                                                   | Benedetta Cerasuolo<br><i>University of Florence (IT)</i>                                          | Phenotypic and immunogenic diversity of gut fungal isolates in pediatric Crohn’s disease.                                                                    |
|                                                                   | Danilo Di Francesco<br><i>Center Agriculture Food Environment (C3A), University of Trento (IT)</i> | Unveiling the microbiome biodiversity and biogeography of spontaneous wine fermentations through shotgun metagenomics.                                       |
|                                                                   | Mohamed Sarhan<br><i>Eurac Research - Institute for mummy studies (IT)</i>                         | From ancient fermentations to modern mycology: detecting yeasts across Millennia.                                                                            |
|                                                                   | Sandro Gepiro Contaldo                                                                             | The Italian microbial research platform: a                                                                                                                   |

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|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
|                                                                   | <i>University of Turin (IT)</i>                                                                         | model for collaborative, FAIR, and sustainable data infrastructure.                                                         |
|                                                                   | Justyna Ruchała<br><i>University of Rzeszów (PL)</i>                                                    | Ecological and metabolic characteristics of yeasts associated with the silverfish <i>Lepisma saccharina</i> .               |
|                                                                   | Alessandro Russo<br><i>University of Florence (IT)</i>                                                  | Tidal exposure shapes fungal and bacterial communities in tropical sandy beaches: evidence from Djibouti coastal sediments. |
|                                                                   | Matteo Florio Furno<br><i>University of Turin (IT)</i>                                                  | A multi-omics characterization of marine basidiomycete yeasts with plastic-degrading potential.                             |
|                                                                   | Sara Linciano<br><i>Ca' Foscari University of Venice; Arzanya S.r.l.; ECLT (IT)</i>                     | Yeast display technology enables rapid discovery of potent macrocyclic peptide ligands against diverse protein targets.     |
| 04:00 pm – 04:30 pm                                               | Coffee break                                                                                            |                                                                                                                             |
| <i>Chairs: Terrance Cooper, Luigi Palmieri &amp; Steve Oliver</i> |                                                                                                         |                                                                                                                             |
| 04:30 pm – 04:45 pm                                               | Andriy Sibirny<br><i>Institute of Cell Biology, NAS of Ukraine, Lviv and University of Rzeszow (PL)</i> | Selective autophagy of cytosolic proteins in the methylotrophic yeast <i>Komagataella phaffii</i>                           |
| 04:45 pm - 05:15 pm                                               | Joseph Schacherer<br><i>University in Strasbourg (FR)</i>                                               | From one genome to thousands, and beyond.                                                                                   |
| 05:15 pm – 05:45 pm                                               | John Morrissey<br><i>FEMS YEAST RESEARCH</i>                                                            | Closing Ceremony                                                                                                            |
| 05:45 pm – 06:30 pm                                               | <i>Meeting of AISL members</i>                                                                          |                                                                                                                             |
| Under the auspices of                                             |                                                                                                         |                                                                                                                             |



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