

Storage and Computing with DNA 2026

27-29 May 2026

Rectorate of the University of Roma Tre, Rome, Italy

A leading international event bringing together scientists, researchers, innovators and industry leaders to discuss the future of DNA-based data storage and computing, explore the latest advancements and foster exchange and collaboration across the field.

SCDNA 2026 - Program Day 1 - Wednesday 27 May 2026

08:15 - 09:00

Registration

09:00 - 09:30

Greetings - Chair: **Claudia Elena Calu** - Day One

- **Paolo De Stefanis** - Day One
- **Francesco Marcolini** - President of Lazio Innova
- **Isabel Obieta Vilallonga** - EIC/DigNA
- **Vincent Franceschini** - Biomemory/DNA Data Storage Alliance

09:30 - 10:15

Keynote 1

- **Damien Woods** - Maynooth university
"Thermodynamically favoured DNA data structures and algorithms"

10:15 - 11:00

Keynote 2

- **Vincent Coltellino** - US Library of Congress
"Moving forward: perspective from an archival institution"

11:00 - 11:30

Coffee Break

11:30 - 11:50

Session 1 - From Innovation to Regulation: Biosecurity Implications for DNA Data Storage

Moderated by **Robertas Skliaustas** – Genomika

- **Andreas Prenner** - DG SANTE

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11:50 - 12:30

Session 1 (continued)

- **Vincent Coltellino** - US Library of Congress
- **Manu Shivakumara** - IBBIS
- **Andreas Prenner** - DG SANTE (remotely)
- **James Diggans** - Twist Bioscience
- **Dominique Loqué** - Biomemory
- Q&A

12:30 - 14:00

Lunch break

14:00 - 15:15

- **Session 2 - DNA data storage: from molecular memory to scalable reality**
Moderated by **Jérôme Charmet** – HES-SO

- **Martin Jost** - Kilobaser
- **Marthe Colotte** - Imagene
- **Tomaž Karčnik** - Biosistemika
- **Ignas Galminas** - Genomika
- **Felix Full** - Eurofins
- **Fabian Schroeder** - EkoRefugium
- **Erika Schaudy** - Helices Biological PhotoLithography
- Q&A

15:15 - 15:45

- **Coffee break**

15:45 - 16:30

- **Session 3 - DNA Data Storage from idea to applications**
Moderated by **Tomaž Karčnik** – Biosistemika

- **Carlo Wesseling** - Netherlands Army, Netherlands
- **Andrej Filipčič** - Jozef Stefan Institute, Slovenia; CERN, Switzerland
- **Robert Grass** - Haelixa, Switzerland
- **Vincent Franceschini** - SNIA
- Discussion

16:30 - 17:15

- **Session 4 - The Next Phase of DNA Data Storage: Building an Industry Ecosystem**
Moderated by **Robertas Skliaustas** – DNA Data Storage Alliance

- **Discussion title:** What Should the DNA Data Storage Alliance Become?
- **Discussion panel:** DNA Data Storage Alliance Board

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SCDNA 2026 - Program Day 2 - Thursday 28 May 2026

08:30 - 09:00

Welcome

09:00 - 09:45

Keynote 3 - Chair: Vincent Franceschini

- **Jeff Nivala** - University of Washington
"DNA Data Storage, art, and public engagement"

09:45 - 11:05

Session 5 - End-to-end data storage analysis (1)

- **Pierre-Yves Burgi & Michaël El Kharoubi**
"Towards autonomous end-to-end DNA data archiving with a built-in quality-control" + Q&A
- **Xingyu Jiang**
"DNA Data Storage on-the-go" + Q&A
- **Jérémy Mateos**
"Wetlab validation of JPEG DNA coding system for image storage on synthetic DNA" + Q&A
- **Tomaž Karčnik**
"Robust DNA Data Storage via Block-by-Block Synthesis: The PEARL-DNA Architecture" + Q&A

11:05 - 11:30

Coffee break

11:30 - 12:50

Session 6 - Digital processing (1) - Chair: Paolo Donati

- **Puru Sharma**
"Improving Consensus Finding in DNA Data Storage with Base-Level Quality Scores" + Q&A
- **Tao Han**
"VoiceArk: A Progressive DNA Storage System for Robust and Scalable Speech Archiving" + Q&A
- **Alessia Marelli**
"Assembly-Aware Simulation and Fragment Clustering for DNA Data Storage with DNAssim" + Q&A
- **Adi Levy**
"Expected Recovery Time in DNA-based Distributed Storage Systems" + Q&A

12:50 - 14:00

Lunch break

14:00 - 14:45

Keynote 4 - Chair: Marthe Colotte

- **Roger Rudoff** - Atlas Data Storage
"High Density CMOS-based synthetic DNA data storage systems" + Q&A

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14:45 - 15:25

Session 7 - DNA data storage in products and materials

- **Ibon Santiago**
"Polymer-DNA Composite Fibers as a Versatile Platform for DNA Data Storage" + Q&A
- **Francesca Granito**
"DNA-of-Things: Embedding Digital Data from Newspaper Printing to DNA-Encoded Construction Material Passports" + Q&A

15:25 - 16:00

Coffee break

16:00 - 16:40

Session 8 - Private and encrypted data storage in DNA Chair: Vincent Franceschini

- **Tom de Greef**
"Molecular encryption for controllable random access in DNA data storage" + Q&A
- **Zohar Yakhini**
"Private Information Retrieval for Large-Scale DNA-Based Data Storage" + Q&A

16:40 - 18:15

Poster session

18:15 - 19:00

Transfer

19:00 - 23:00

Official conference dinner

Ripa Grande
Address: Lungotevere Ripa, 3, Rome.
<https://ripagrande.it>

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SCDNA 2026 - Program Day 3 - Friday 29 May 2026

08:30 - 09:00

Welcome

09:00 - 10:20

Session 9 - Strand displacement & DNA Origami for data storage
Chair: **Zohar Yakhini**

- **Sing-Ming Chan**
"Associative Handhold-mediated Strand Displacement Mechanisms for Data Manipulation in DNA Nanostructure-Based Data Storage Devices" + Q&A
- **Anastasiya Malyshava**
"Combinatorial 4-way and 6-way Strand Displacement for Programmable Reversible Data Manipulation on DNA Origami" + Q&A
- **Ferenc Fördös**
"Biologically Replicable, Thermostable Data Storage in DNA Origami" + Q&A
- **Gangamallaiiah Velpula**
"Effect of different cations on controlling the orientation of chiral double-L DNA origami on solid substrate" + Q&A

10:20 - 10:50

Coffee break

10:50 - 11:30

Keynote 5 - Chair: Roger Rudoff

- **Eitan Yaakobi** - Technion
"Coding for efficient and scalable DNA synthesis" + Q&A

11:30 - 12:30

Session 10 - End-to-end data storage analysis (2)

- **Chandler Petersen**
"Boolean Search with Scalable Strand Displacement Circuits in DNA Data Storage" + Q&A
- **Jaroslav Kocisek**
"Nanocluster positioning on DNA nanostructures for robust information storage" + Q&A
- **Connor Nurmi**
"Toward Practical DNA Storage and Computation with Improved DNA-Ligating DNazymes" + Q&A

12:30 - 13:30

Lunch break

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13:30 - 14:50

Session 11 - Synthesis technologies and commercial impact

Chair: Robert Grass

- **Vincent Franceschini**
"Making DNA Data Storage IT Friendly and DC-ready" + Q&A
- **Rodney Agayan**
"Scaling NGS Analyses for Ultra-High-Complexity DNA Data Storage Libraries" + Q&A
- **Hamed Sabzalipoor**
"Combinatorial DNA Data Encoding via Automated Multi-Trimer Integration in Maskless Photolithographic DNA Synthesis" + Q&A
- **Jory Lietard**
"Nanopore sequencing of synthetic libraries of RNA oligonucleotides" + Q&A

14:50 - 15:20

Coffee break

15:20 - 16:40

Session 12 - Digital processing (2)

Chair: Eitan Yaakobi

- **Serge Kas Hanna**
"DNA-MGC+: A Codec for Reliable and Efficient DNA Data Storage" + Q&A
- **Tomer Cohen**
"Correcting Tail Deletions in Rank Modulated Composite Encoding for Data Storage in DNA" + Q&A
- **Gunavaran Brihadiswaran**
"Deep Learning-Guided DNA-DNA Binding Prediction for Scalable DNA Data Storage" + Q&A
- **Chris Takahashi**
"An Adaptable DNA Codec for In-Memory Compute"

16:40 - 17:00

Closing session

Final remarks by DNA Data Storage Alliance & DigNA

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