

Above: Genetically engineered T-Cell to fight lymphoblastic cancer (Kymriah®) Image: S. Diller (Z-Stack of 15 focus layers in MIRA3 FE-REM) Below: Tesla BS343 Table Top REM Image: TESLA broschure, ca 1980, unknown scientist

*The museum will find its home within the metropolitan region of Erlangen – Fürth – Nürnberg.* 





Above: **T4 Bakteriophagi** (Image: Prof. K. Eissler) **Siemens Elmiskop I** (Location: Museum) The first electron microscope owned by FAU Erlangen –

Nürnberg, operated by the Anatomy and Cellular Biology departments.

Board of Directors: Michael Baczko Stefan Diller Prof. Dr. rer. nat. Bernhard Wolf

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# **NUSEUM UNDER** FOUNDATION !



# Research Education Development Connected to an Unique Museum

With the development of electron microscopy in the 1930s, science achieved the ability to visualize molecular and atomic structures in living organisms and solid materials.

In biology and medicine, the deeper understanding of cellular and tissue ultrastructures has led to the development of groundbreaking therapeutics like mRNA vaccines.

In engineering, physics, and materials research, atomic resolution has revealed entirely new structures and connections. Today, electron microscopes are indispensable in the production of semiconductors, nanomaterials and medical diagnostics, among other fields.

Originally developed and built by the later Nobel laureate Ernst Ruska, Bodo von Borries and Max Knoll in Germany, electron microscopy has evolved into various device families produced by domestic and international companies, each with unique properties. These precision instruments of high quality enable imaging and even fabrication at the nanometer scale. Without electron microscopes, we would lack powerful microprocessors and nano-scaled materials.

The nanohub's primary goal is twofold:

- to archive and preserve the different stages of electron microscopy's development
- keeping the technology alive and accessible to students, scientists, and interested citizens

In the envisioned state of the expansion, visitors will have the opportunity to learn about the technology, conduct investigations, receive fundamental training and spark interest among young people, thus fostering their engagement with the natural sciences and STEM fields.

By creating a space where the history, technology and applications of electron microscopy come together, the **nanohub** aims to inspire curiosity, facilitate education and contribute to the advancement of scientific knowledge. We invite you to join us on this exciting journey of exploration and discovery.

*Title:* **JEOL JEM4000 FX**, one of the few remaining 400 kV TEMs in Europe, Situation before dismantling and storage



### Above:

"Self Structured Matter" (Bariumcarbonate Cristals) Below: Siemens Elmiskop I

Gear restored / unrestored

(Location: Museum) Fotos: S. Diller / L. Bochtler)

# **Become** a Supporter!

We invite you to become a supporter of the **nanohub** and the Electronmicroscopy Museum. By joining us, you contribute to preserving the history of technology and fostering research and development. Your support enables us to continue our mission of **"Experience, Explore, Discover, Learn"**. We value your involvement and are grateful for your contribution. To discuss the various ways you can become a sponsor, please feel free to reach out to us.





Above: H3N2-Viruses Viewfield Width 600 nm (Images: S. Diller)

**Piezo-Specimen Stage** in a TESCAN MIRA3 Fieldemission-SEM