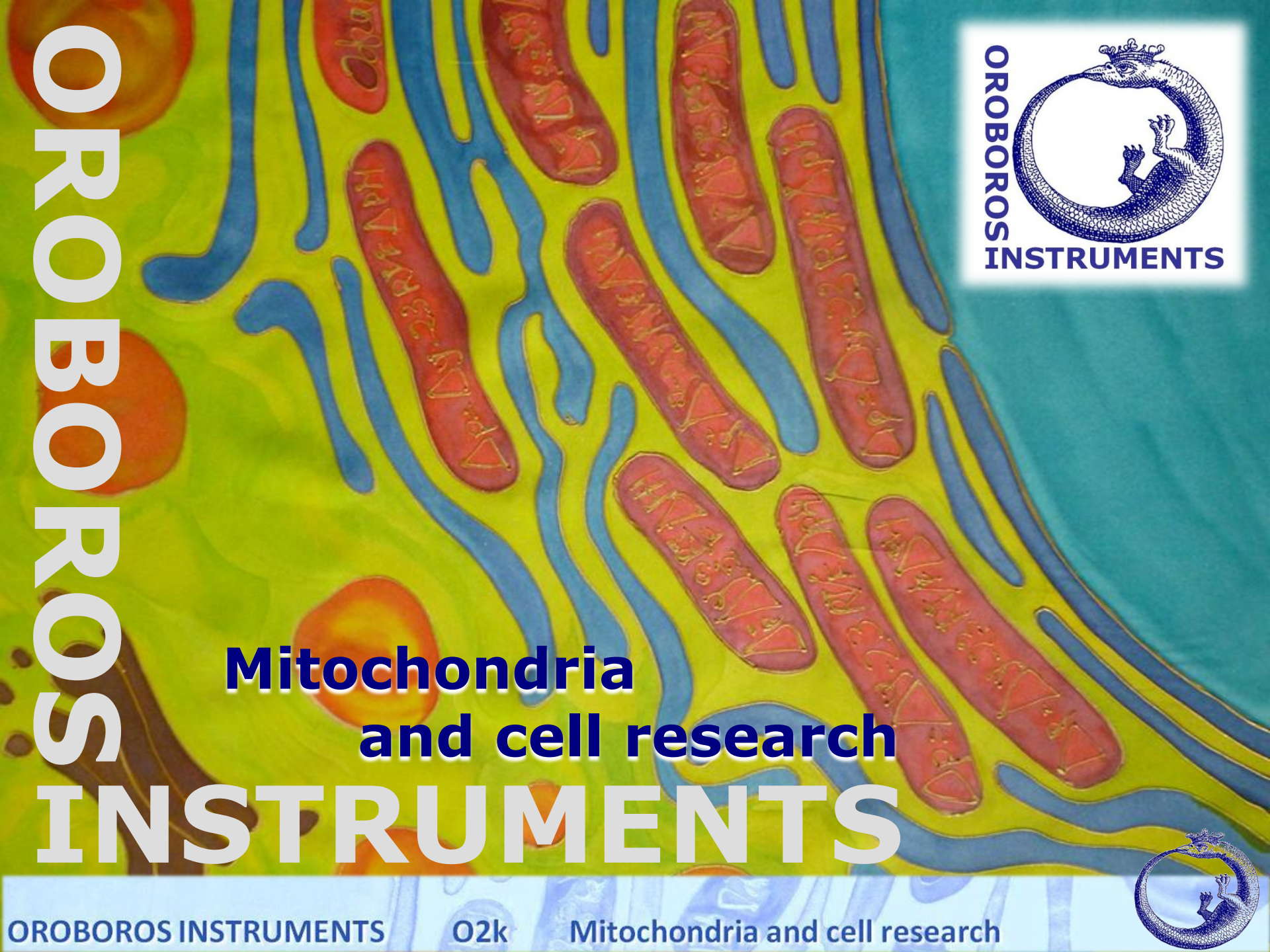
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Mitochondria
and cell research
OROBOROS INSTRUMENTS O2k Mitochondria and cell research

$$\Delta p_{mt} = \underset{\text{potential}}{\textit{electric}} + \underset{\text{potential}}{\textit{chemical}}$$

$$\Delta p_{mt} = \Delta\Psi_{mt} + \Delta\mu_{H+}/F$$

$$\Delta\mu_{H+} = -\Delta\text{pH} \cdot 2.3 \cdot RT$$

$$\Delta p_{mt} = \Delta\Psi_{mt} - \Delta\text{pH} \cdot 2.3\, RT/F$$

Peter Mitchell
Nobel Prize 1978

MiPArt – Mitchell's dream

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Oxygraph-2k
Mitochondria and cell research

O2k-Workshop: OUR COMMON AIMS

- **Mitochondrial physiology:**
  Study mitochondrial function in the **context** of cell physiology and pathology
- **Instrumental performance – the O2k:**
  - Learn **high**-resolution respirometry
  - Gain **hands-on** experience
  - Extend to O2k-**Multi**Sensor applications
- **Excellence in research:**
  - Instrumental **quality** control
  - Experimental design for **innovation**
  - Data analysis meeting superior **standards**

OROBOROS O2k

Quality versus quantity: high output

If you're using a biased instrument, it doesn't matter how many measurements you take – you're aiming at the wrong target.

Nate Silver (2012) The signal and the noise.