

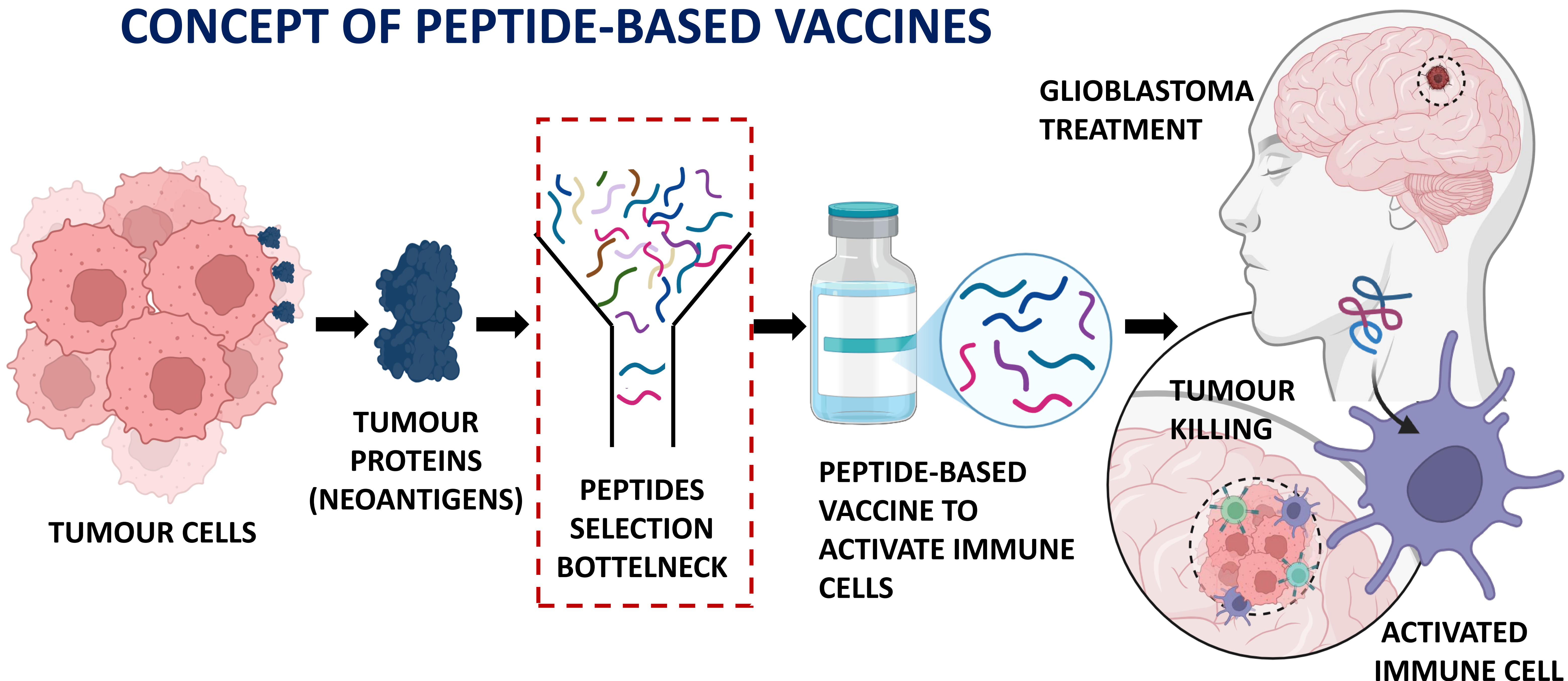
Quanti-PEP

multi-modal Quantum Imaging of cellular metabolism

for high throughput screening for peptide-based cancer vaccine

Roland Nagy¹, Danijela Gregurec¹, Aldona Mzyk², Cristian Bonato², Nicholas Leslie², Firas Hamdan³, Vincenzo Cerullo³, Reiner John⁴

CONCEPT OF PEPTIDE-BASED VACCINES



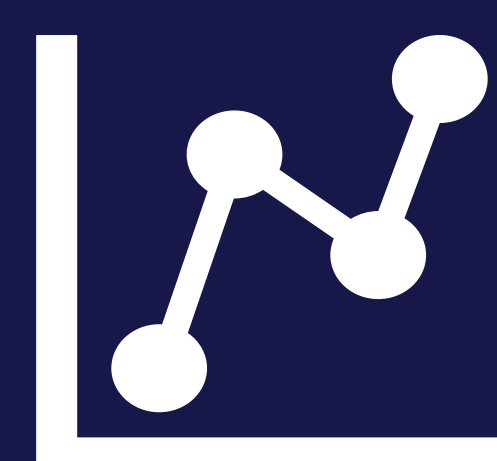
CHALLENGE OF CURRENT PEPTIDES SELECTION



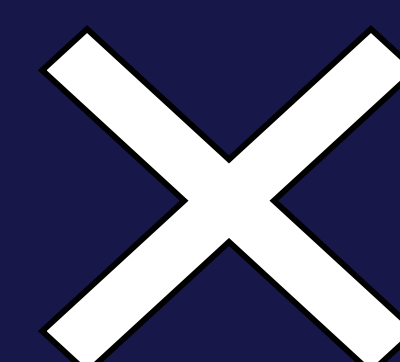
SLOW



MULTIPLE ASSAYS



LOW PREDICTIBILITY



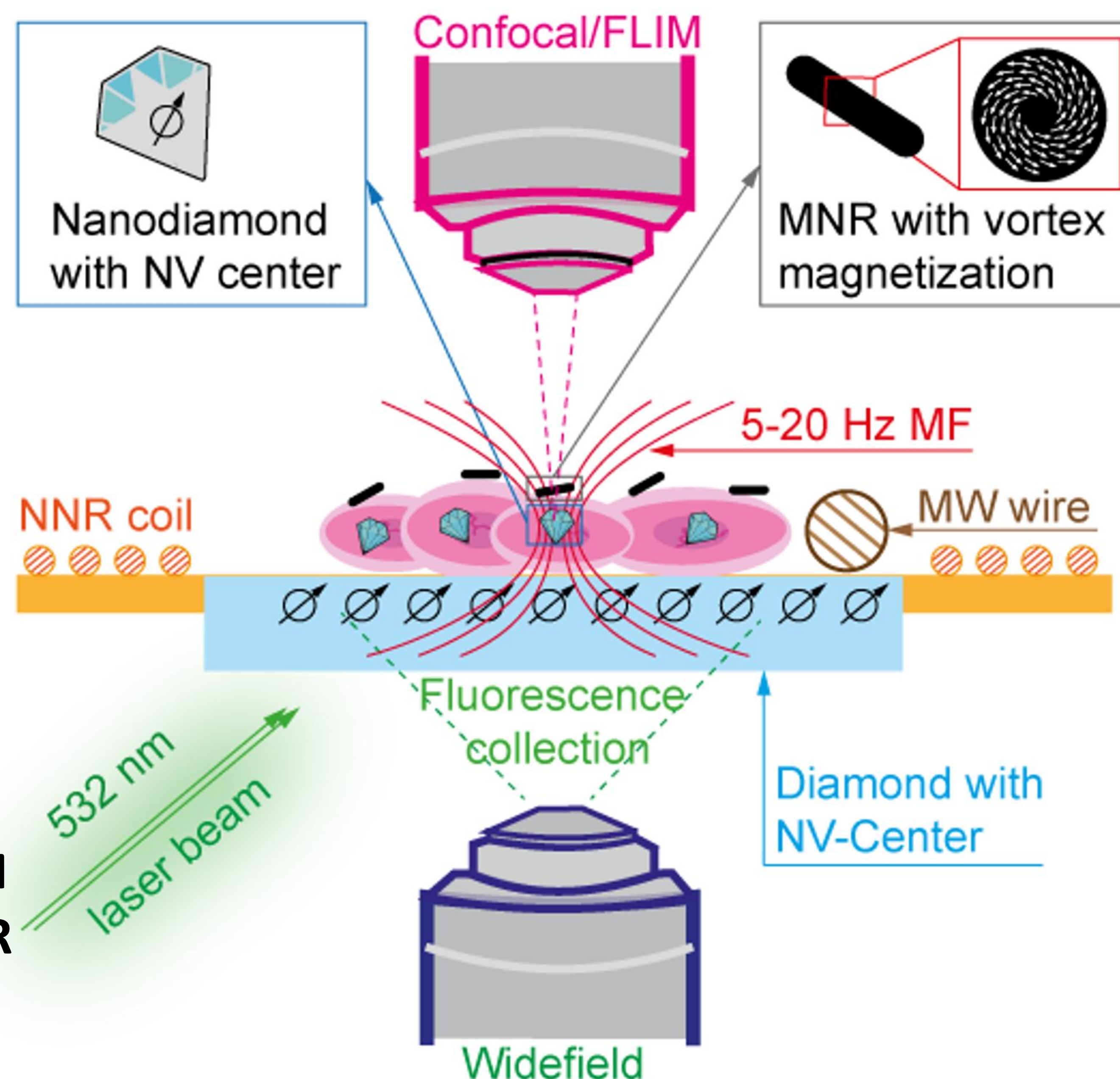
MOST PEPTIDES DISCARDED

QUANTI-PEP SCREENING SOLUTION

Single Assay - Fast - High Sensitivity

- FAU¹**
- ✓ PEPTIDE DELIVERY & IMMUNE CELL ACUTATION WITH MAGNETIC NANORODS

- ✓ WIDEFIELD QUANTUM IMAGING OF MNRS



- HELSINGIN YLIOPISTO
HELSINGFORS UNIVERSITET
UNIVERSITY OF HELSINKI³**
- ✓ PEPTIDES GENERATION & SELECTION

- ✓ QUANTI-PEP ASSAYS DEVELOPMENT & BENCHMARKING



- HERIOT WATT²
UNIVERSITY
UK | DUBAI | MALAYSIA**
- ✓ CONFOCAL/FLIM QUANTUM SENSING OF INTRACELLULAR METABOLIC MARKERS

- ✓ QUANTI-PEP PLATFORM - COMBINING MODULES INTO ONE DEVICE

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