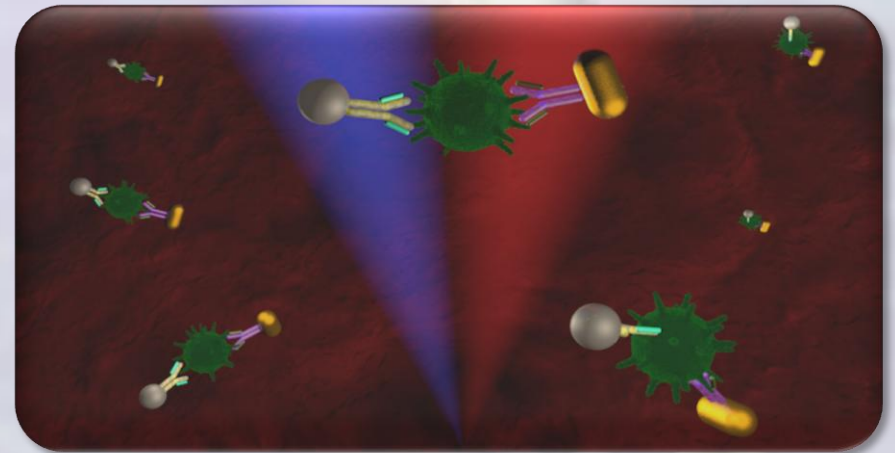
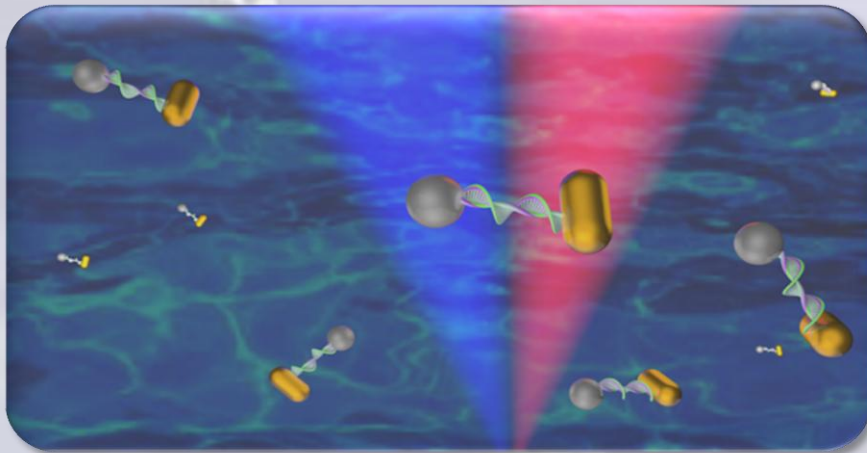
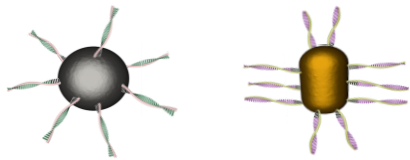

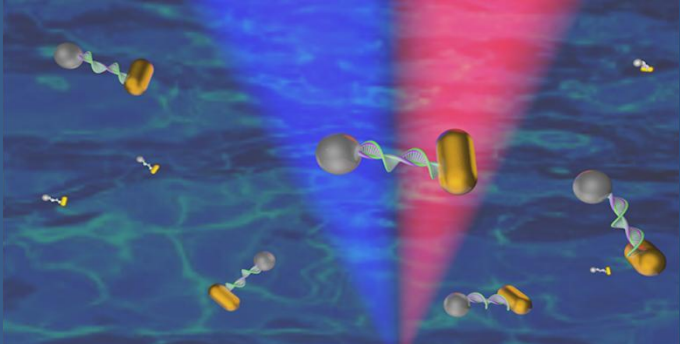
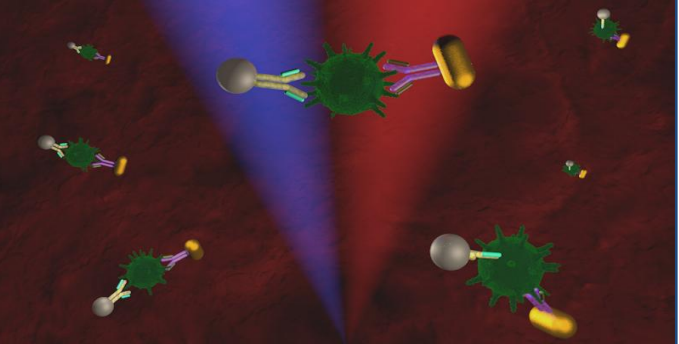


# One-step homogeneous biodetection assay

## PhOCCS Technology



- PhOCCS Targets:**
- ✓ Specific biomarker detection
  - ✓ Single mixing & analysis step
  - ✓ Fast and simple read-out
  - ✓ Small sample volume

	DNA-based detection	Protein-based detection
<b>Probe-functionalized nanoparticles:</b> DNA aptamers antibodies		
<b>Molecular targets:</b> DNA miRNA Proteins Bacteria		

# Competitive technological advantages

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## PhOCCS is

### ✓ Simple

Single mixing step

No rinsing, no grafting, no purification needed

Low running cost

### ✓ Fast

Incubation < 30 min, read-out < 2 min

Serial or parallel multiplexing

Works with only few microliters of sample

### ✓ Accurate

Picomolar sensitivity

High specificity to target molecule

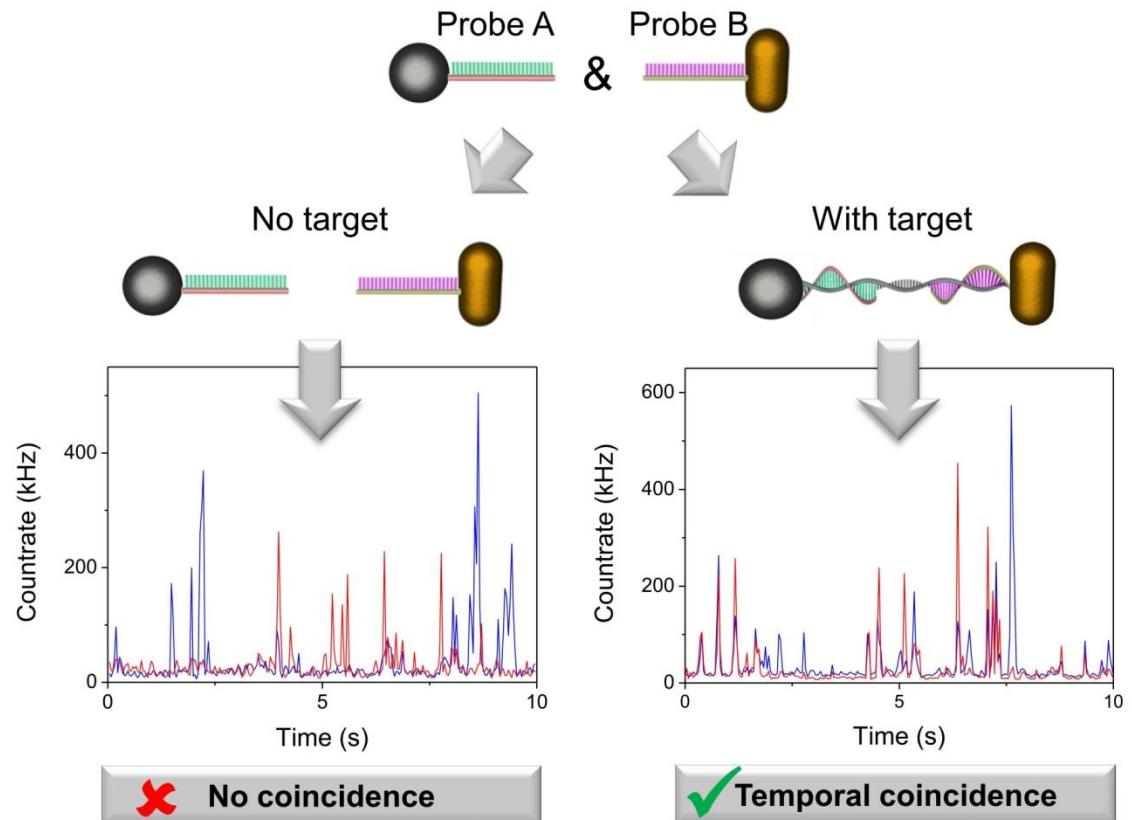
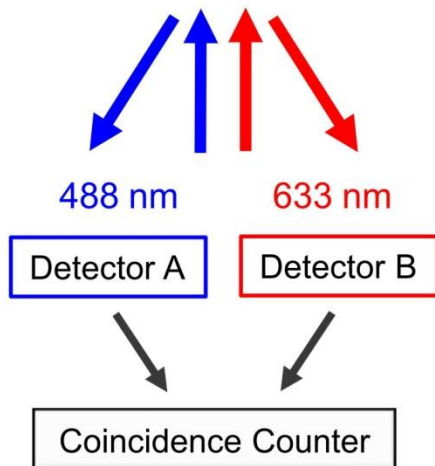
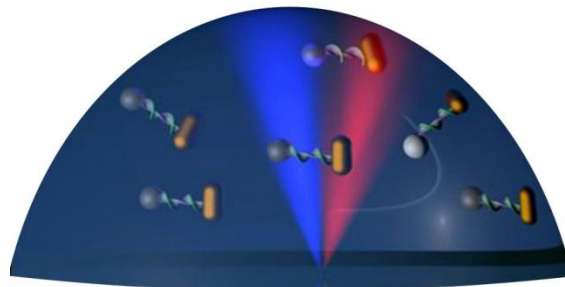
# PhOCCS: How it works

The detection uses the self-assembly of metal nanoparticles via specific probes-target recognition.

The read-out is based on the light intensity scattered by the metal nanoparticles at two different colors (**blue** and **red**). The signal is a million times more intense than fluorescence and perfectly photostable.

Coincidence events between detection channels accurately quantifies the presence of the target molecule and is insensitive to background.

## Dual color confocal detection

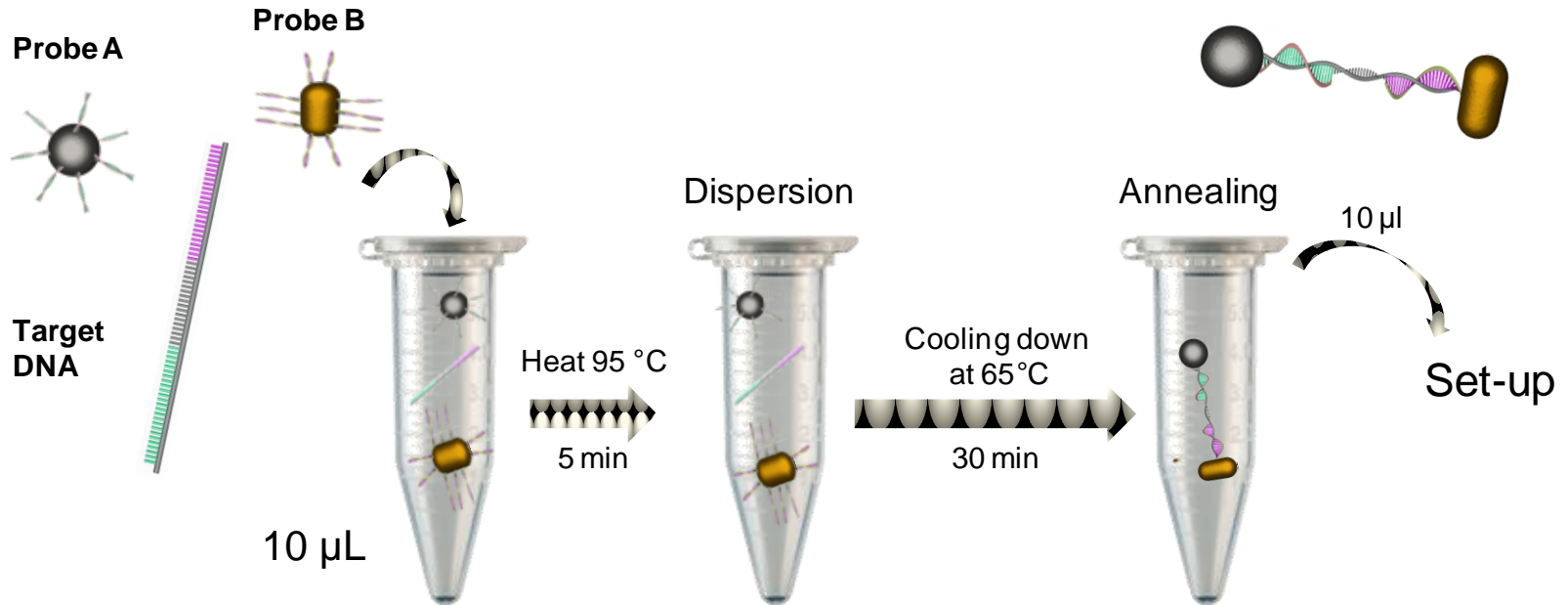


# Easy manipulation of the sample with no washing steps

Mix target with probes

Incubation : 30 min

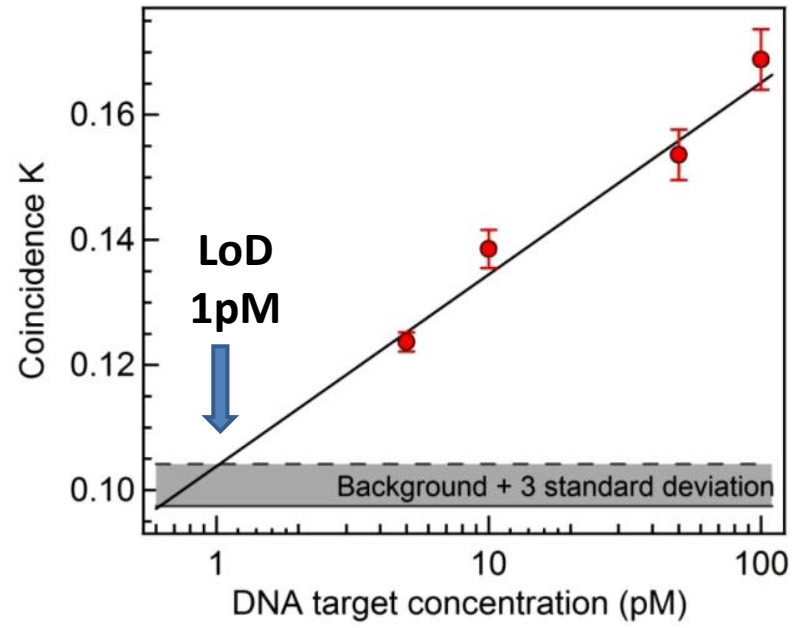
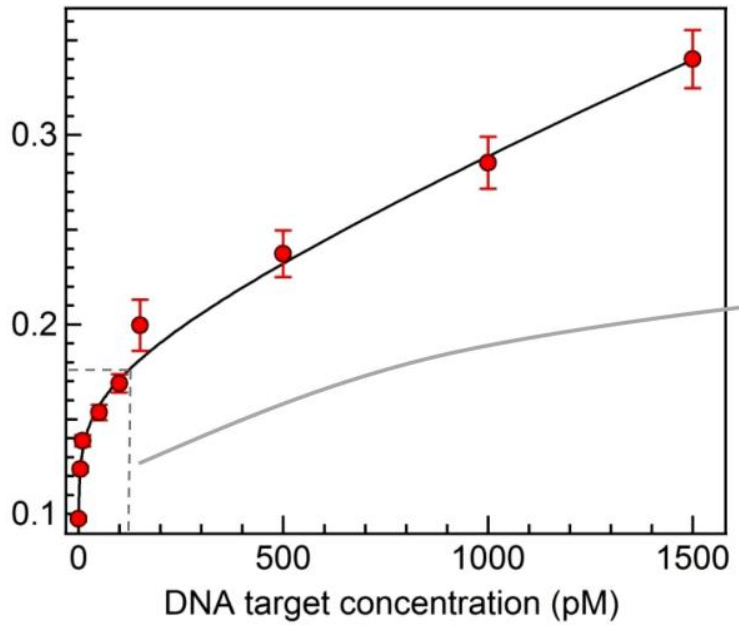
Analysis : 2 min



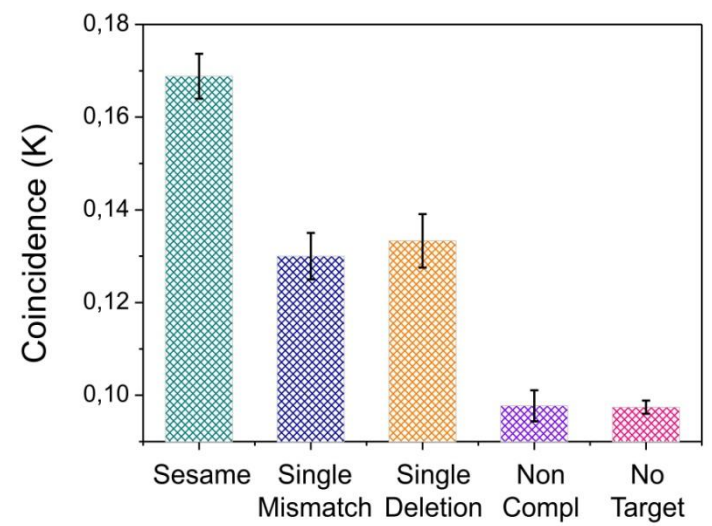
All done in a single step homogeneous solution phase

# Specific detection of DNA with 1 pM limit of detection

Coincidence  
vs  
Concentration  
of Target DNA

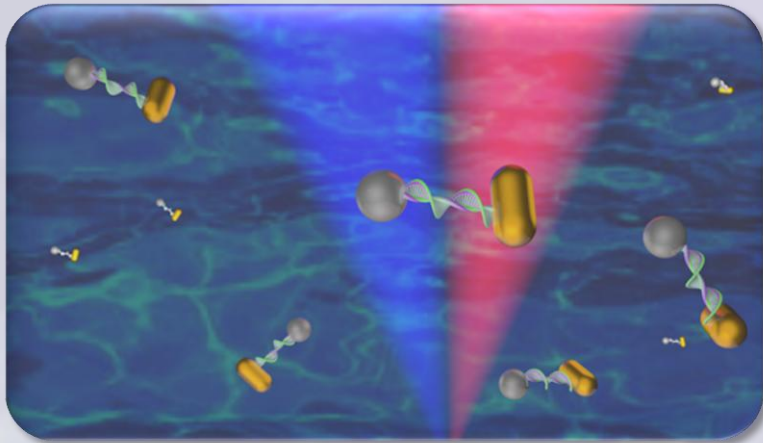


Specific to a single nucleotide mismatch or deletion



# One-step homogeneous biodetection assay

## PhOCCS Technology



**Contact IP & technology transfer:**

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