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# Centrifugal Partition Chromatography applied to grapevine and wine stilbenoids

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# Polyphenols and Neuroprotection

## → Plant chemistry

↘ extraction, purification, identification and analysis of polyphenols

## → Human health

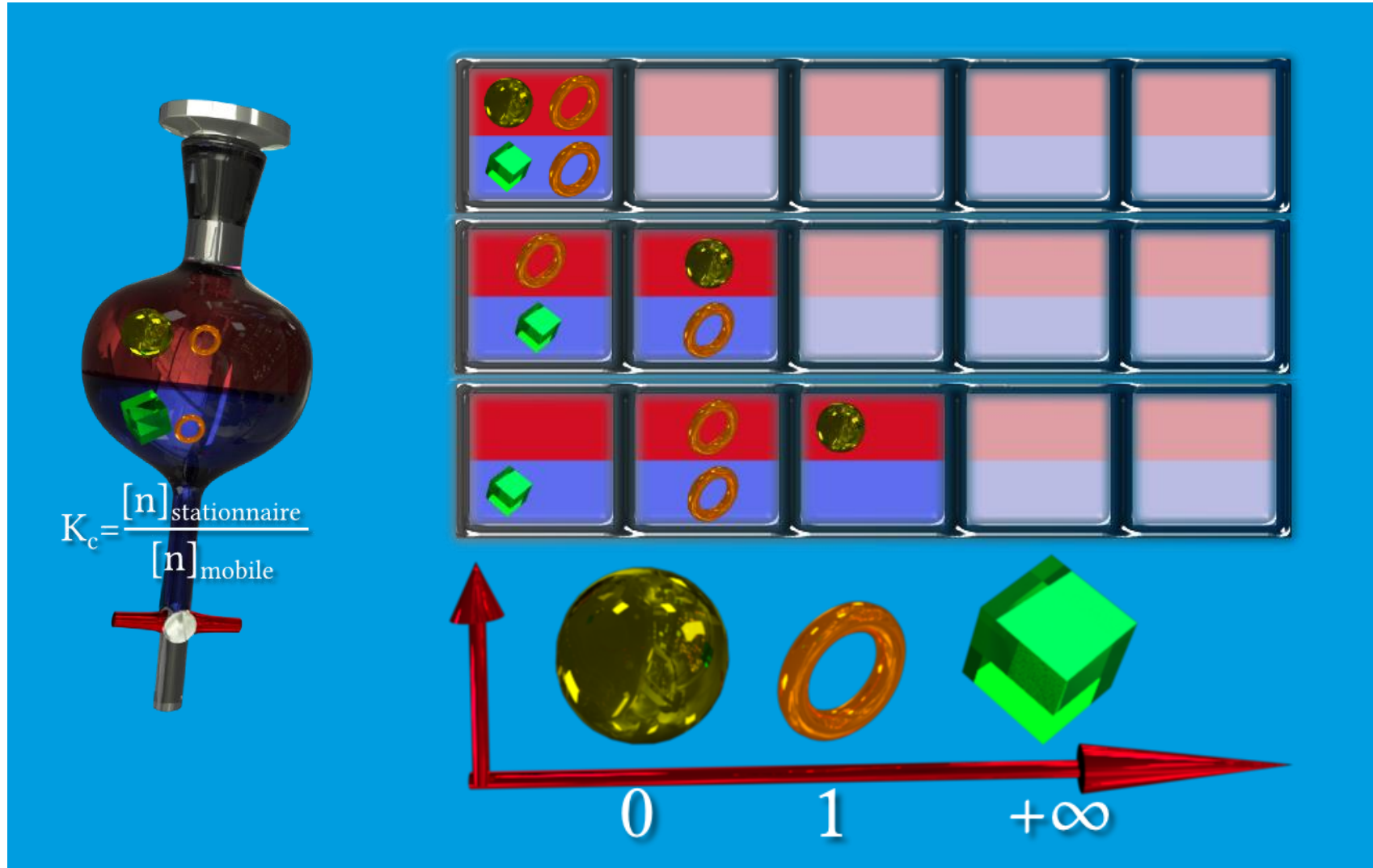
↘ study the neuroprotection activity of these polyphenols (stilbenes)

## → *Polyphenol Biotech*

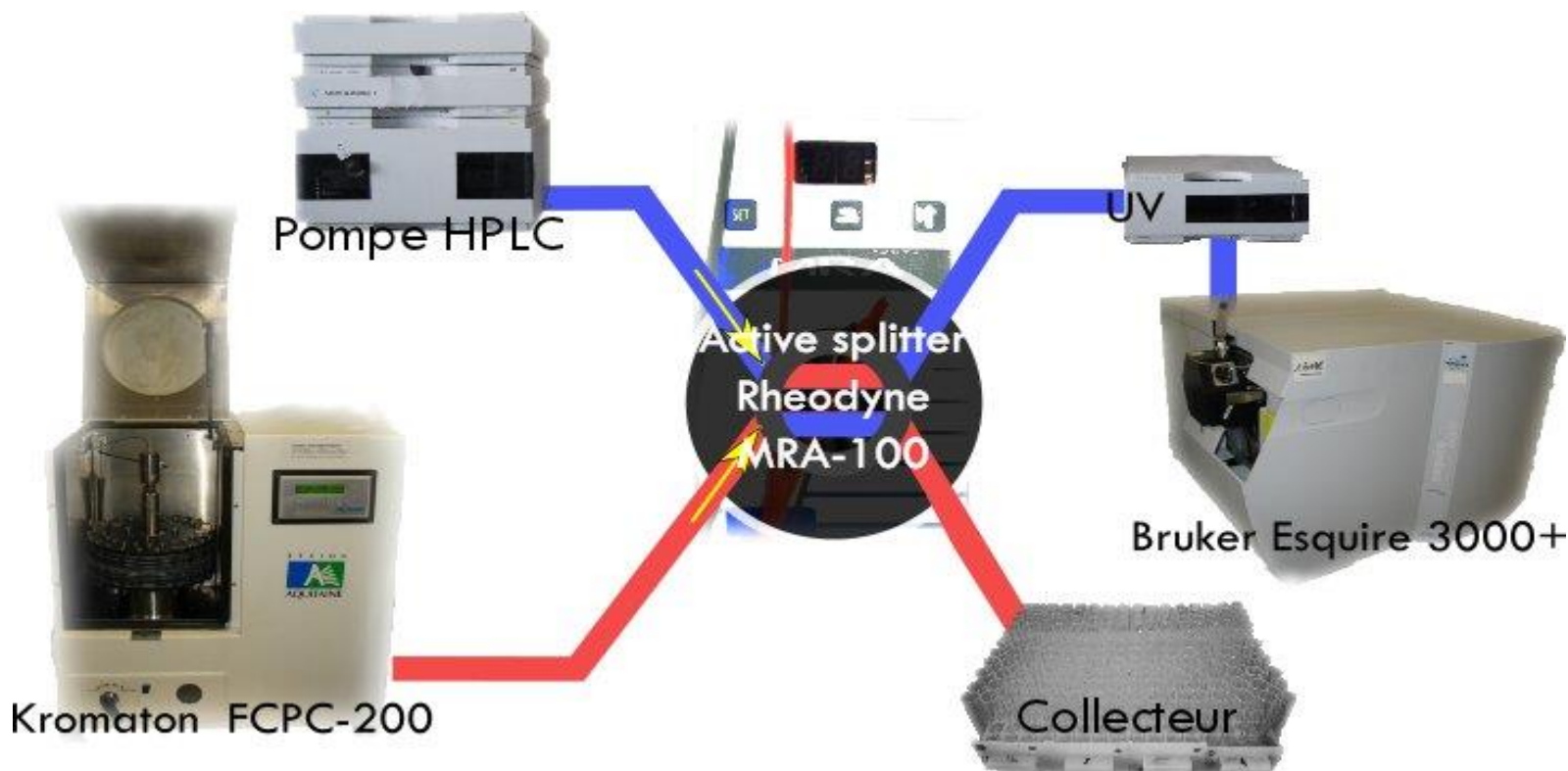
↘ Research contracts with industry

# What is Centrifugal Partition Chromatography (CPC)?

## ► liquid-liquid chromatography



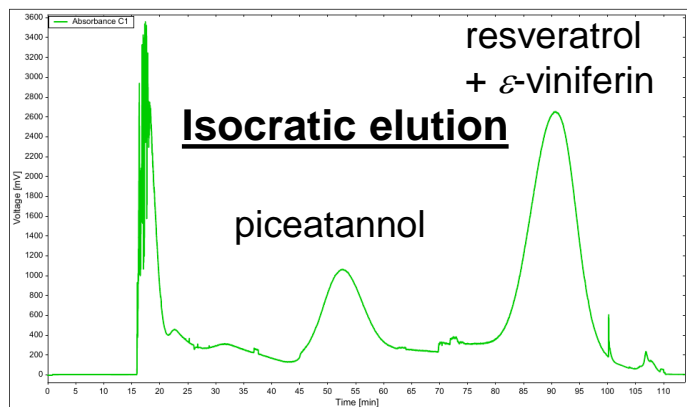
# Direct coupling of CPC with ESI-MS



CPC/ESI-MS Workstation (Bisson *thesis*. 2012)

- ▶ **Splitting ratio 50,000:1**
- ▶ **Simultaneous identification and preparative isolation of compounds**

# Direct coupling of CPC with ESI-MS (Gradient elution)

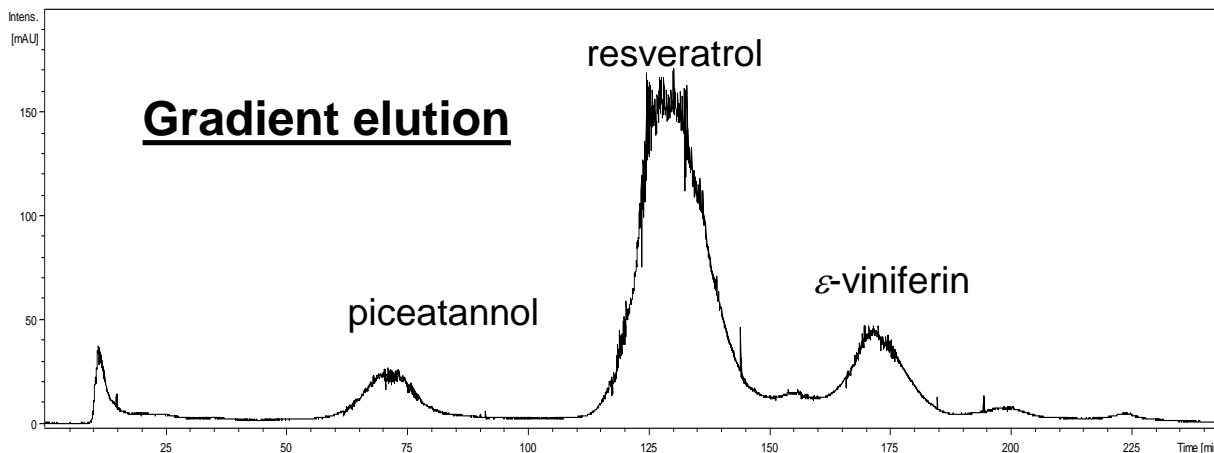


**Biphase solvent systems (H/E/M/wat/Ani)**

Arizona K system  
Descending Mode

K: 1/2/1/2/0  
KMA1: 1/2/0/2/1.2

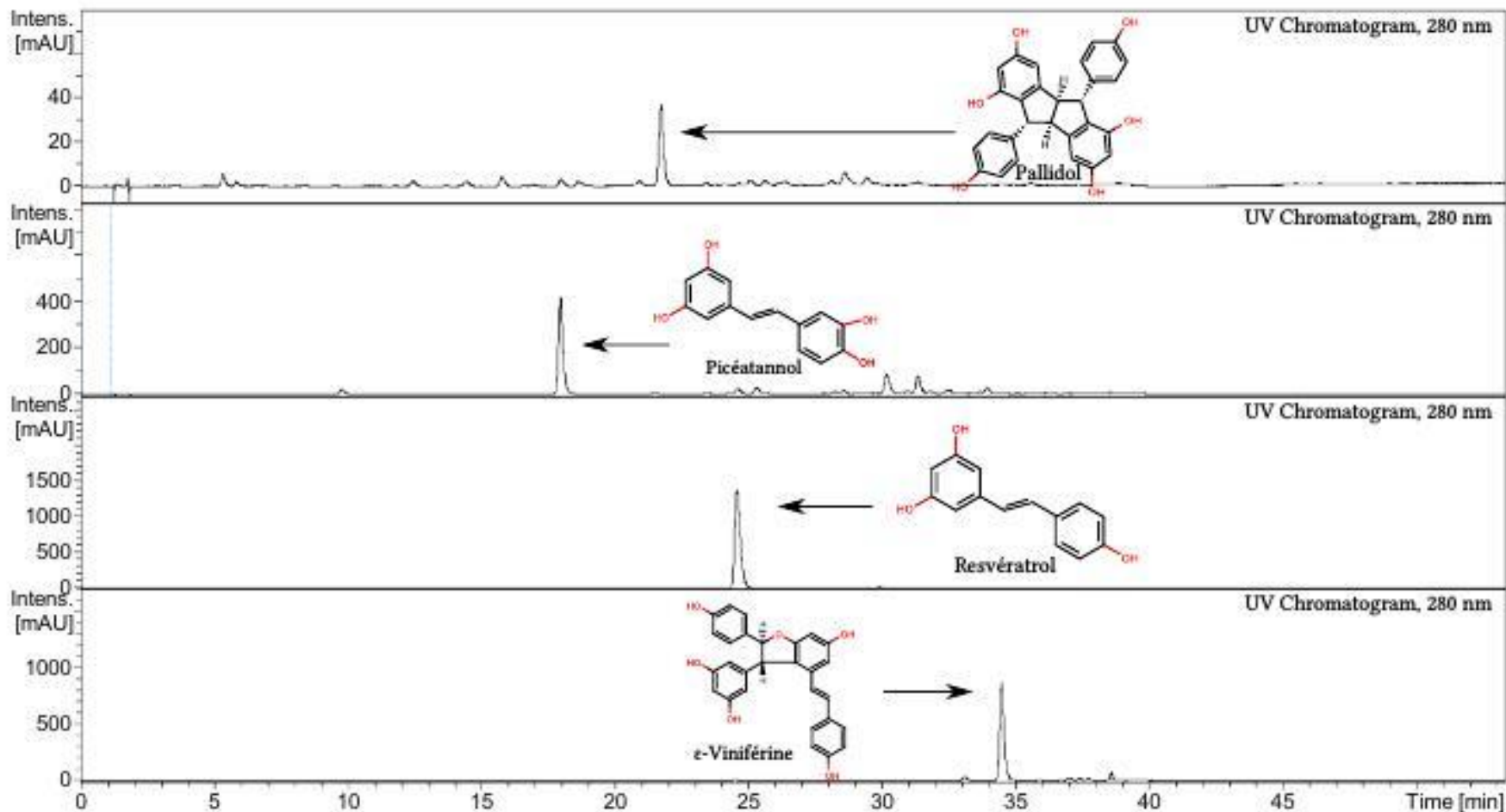
**K** **E**



Stationary phase: **KMA1U**  
Mobile phase (Initial): **KMA1L**  
Mobile phase (final): **KL**  
Descending Mode

**KMA1** **Gradient KMA1 > K** **E**

# Direct coupling of CPC with ESI-MS (Gradient elution)



# The GESVAB (*Dream*) Team



# Thank you for your attention

