



Workshop with Stakeholders on the "Use of Epidemiological findings
in Regulatory Pesticide Risk Assessment"


Paris, 18 February 2015

Key questions for the scientists

Antonio Hernandez-Jerez


3 rd session: the key questions to support epidemiological outcome		Chair: Karin Nienstedt, DG Santè
13.15	The key questions for the regulatory assessor	Karine Angeli, ANSES
13.30	The key questions for the scientists	Antonio Hernandez Jerez, University of Granada, EFSA PPR Panel
13.45	The key questions for the regulatory risk managers	Karin Nienstedt, DG SANCO COM

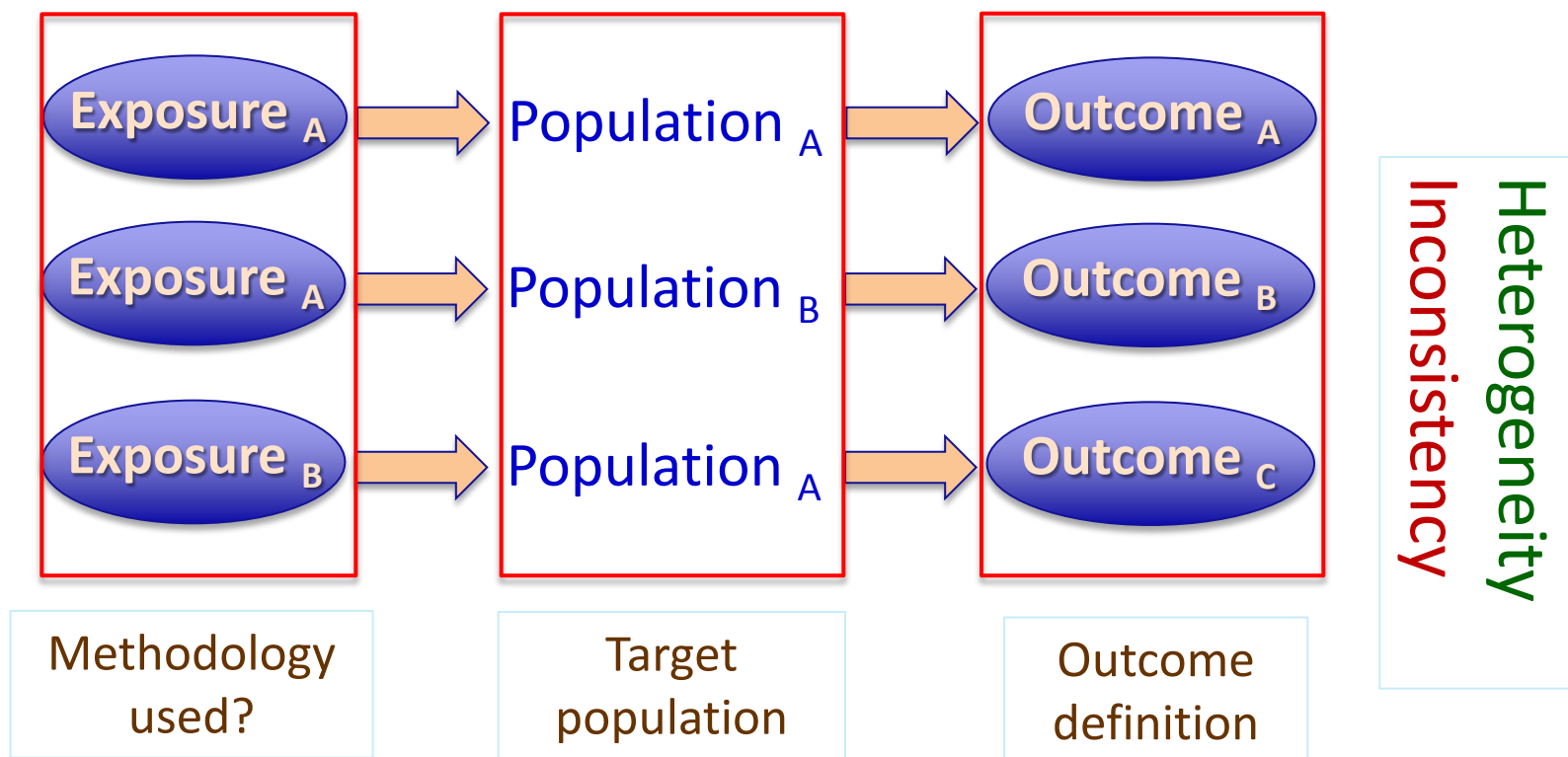
BACKGROUND: KEY QUESTIONS TO SUPPORT EPIDEMIOLOGICAL OUTCOMES

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Could be applied for regulatory purposes?



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Evaluation of consistency among epidemiological studies

Causal inferences for hazard identification



A vertical collage on the left side of the slide featuring a black and white cow, a pile of brown eggs, a landscape with a winding river, a bunch of purple grapes, and a basket of strawberries. The collage is decorated with several white star outlines of varying sizes.

BACKGROUND: KEY QUESTIONS TO SUPPORT EPIDEMIOLOGICAL OUTCOMES

Ultimate goal for the scientists:

- Present epidemiological results informative for risk assessment.
- Provide a better understanding of the frequency, distribution and determinants of diseases in a quantitative way.
 - How?
 - modern biostatistical techniques
- Define 'inconsistency' through a thorough interpretation of heterogeneity in the outcomes
- Properly define confounding factors
- Provide a link with experimental data

ARE THE EPIDEMIOLOGICAL STUDIES FOR PESTICIDES A SPECIAL CASE ?

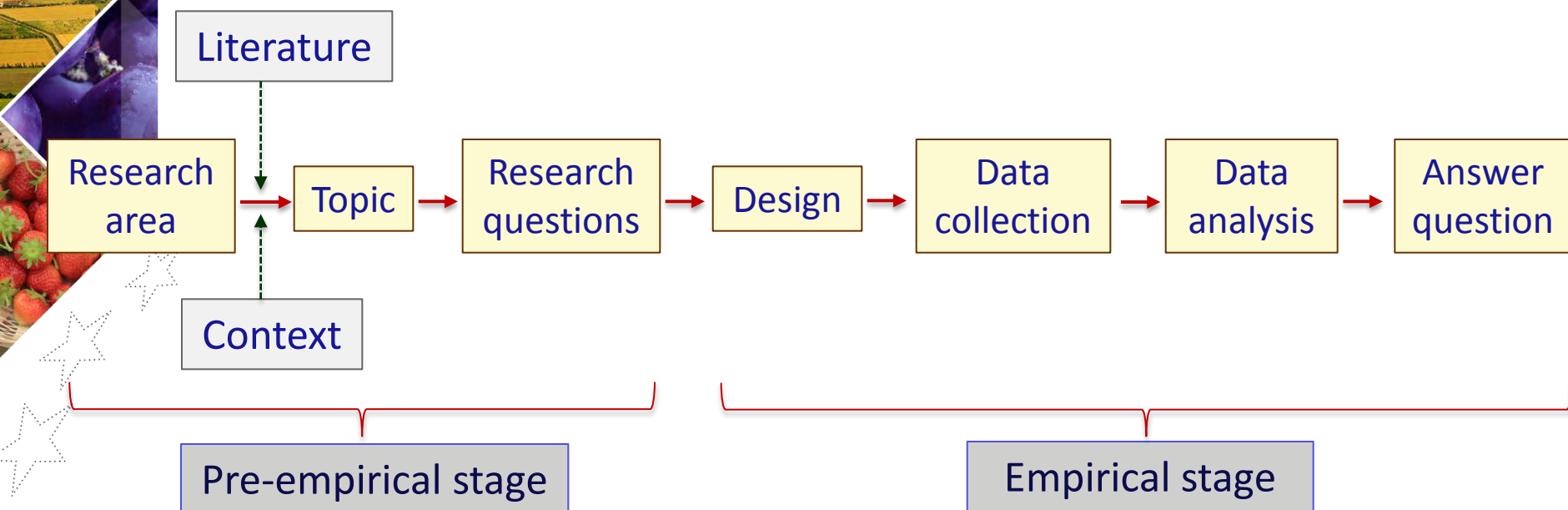
Issues:

- When is an epidemiological study scientifically adequate?
- Should heterogeneity be evaluated as a qualitative step?
- Endpoints vs. 'upstream' effects; what is more sensitive in defining relationships?
- Can the AOP framework help in the assessment of plausibility through a biologically-based assessment of the study results?
- Can the AOP framework be used in a perspective evaluation of epidemiological data?
- Should the methodologies used for pesticide exposure assessment be improved and specified?
- Should biomarkers be introduced as a key step for the improvement of the exposure-effect relationship?
- Should we specify the key analytical tools for quantitative analysis?

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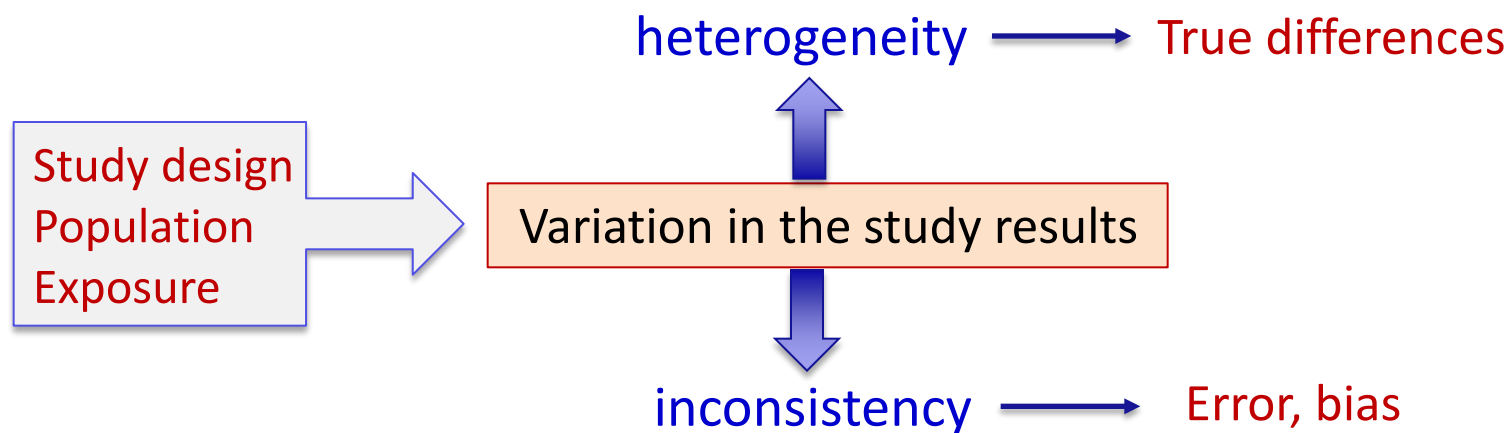
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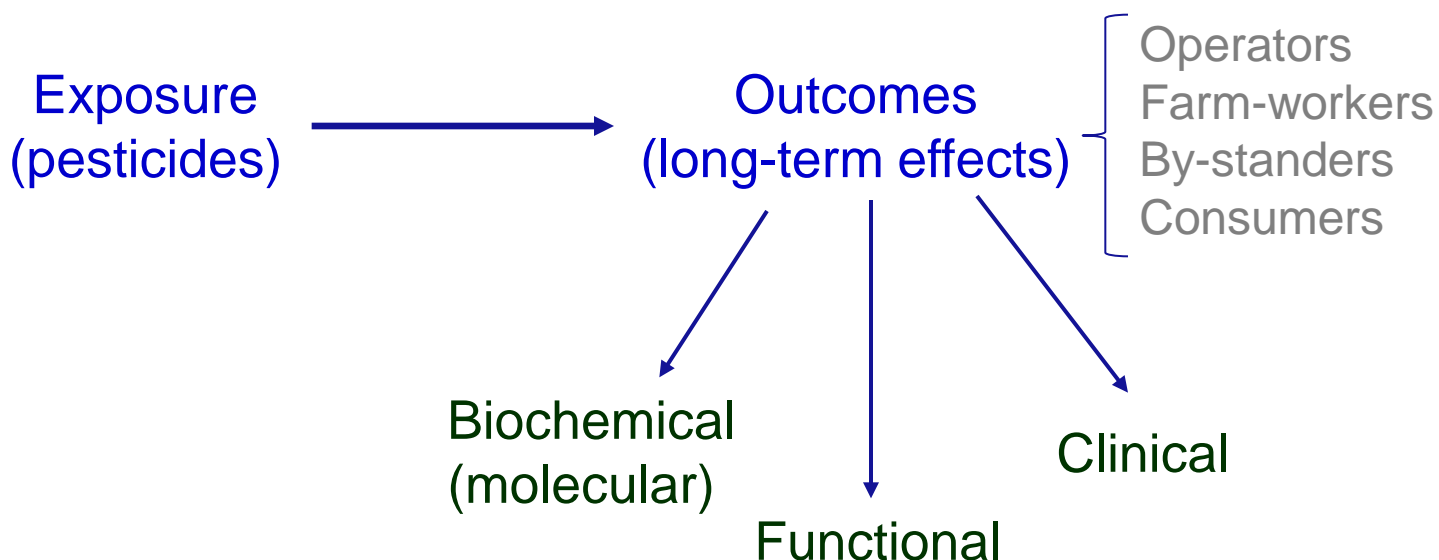
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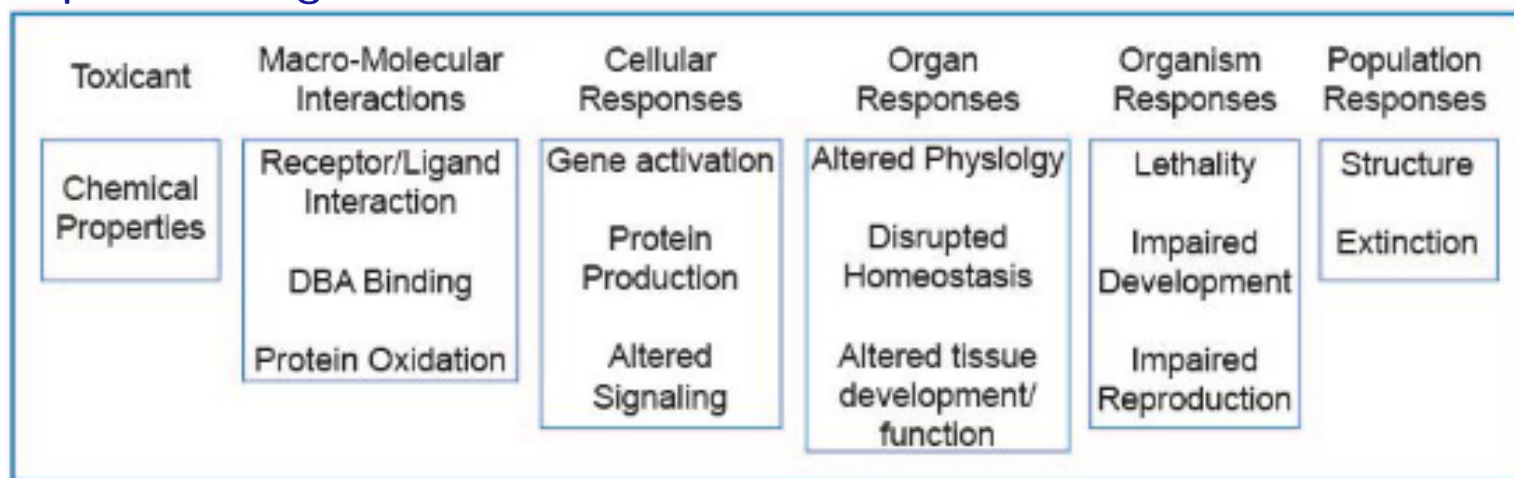
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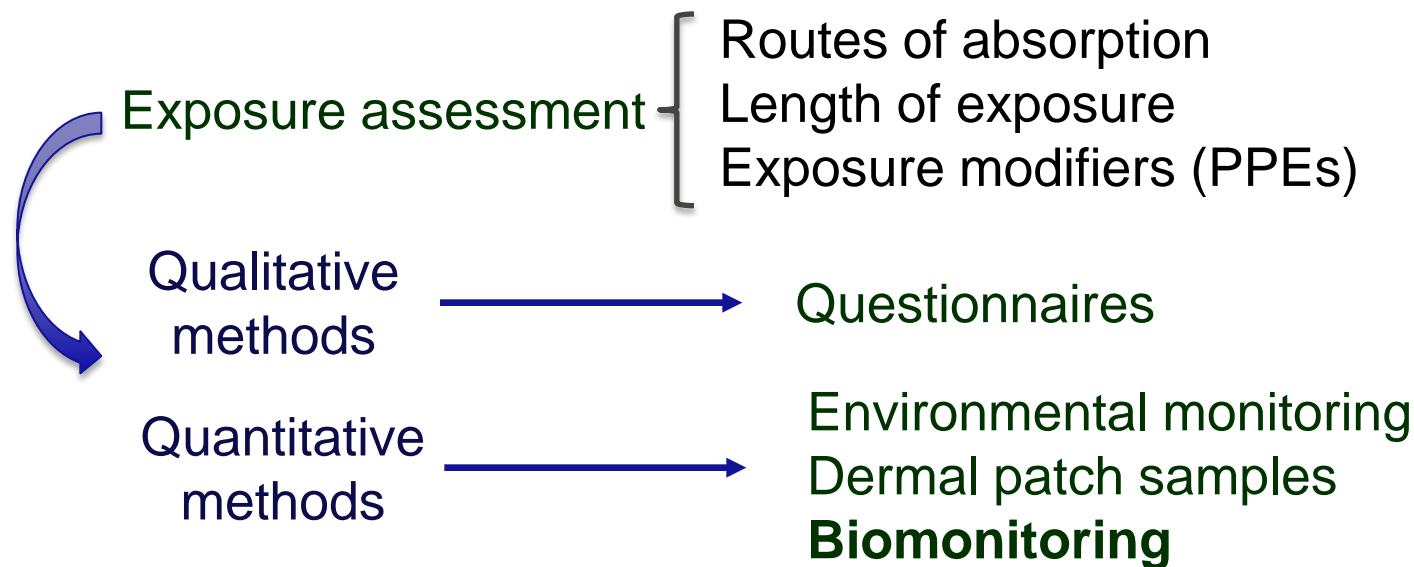
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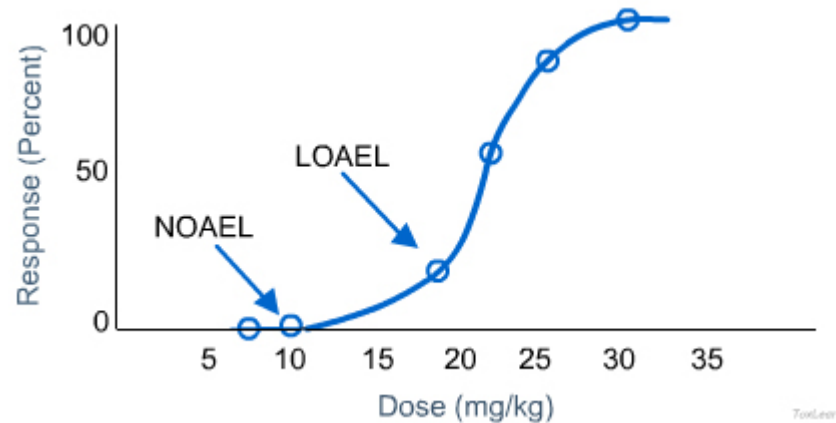
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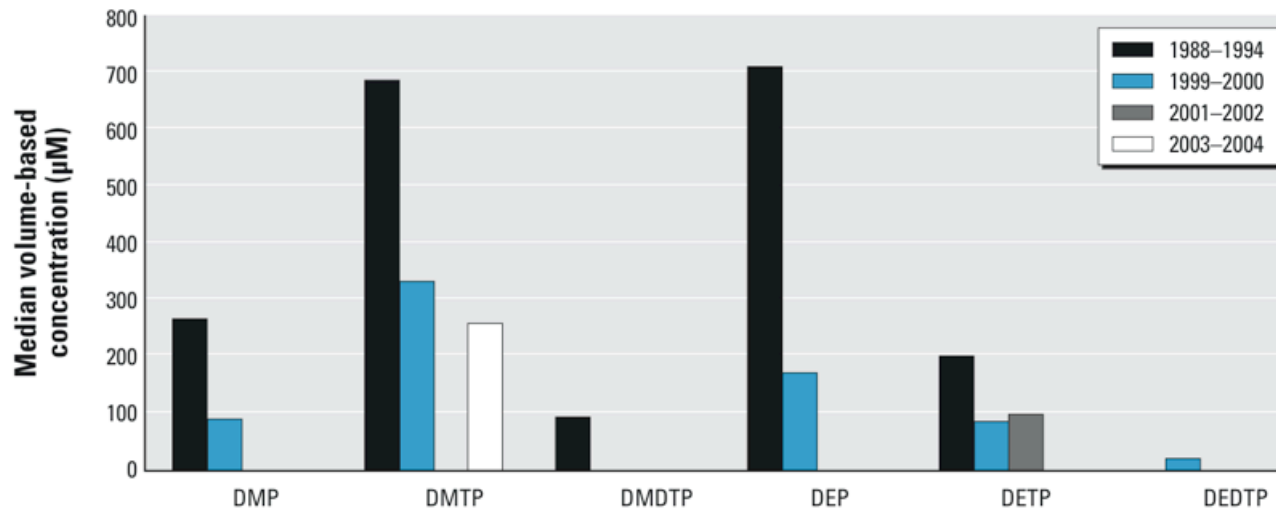
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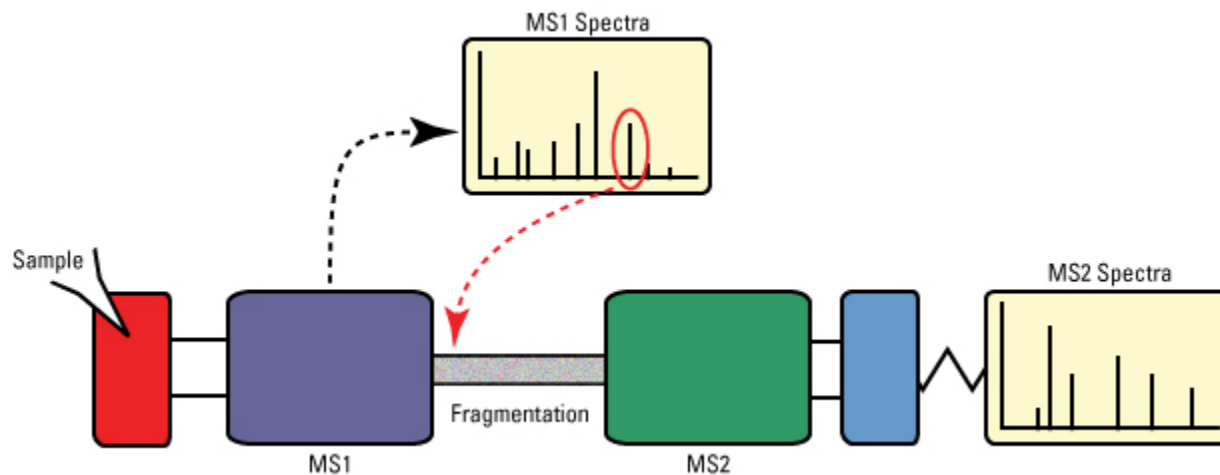
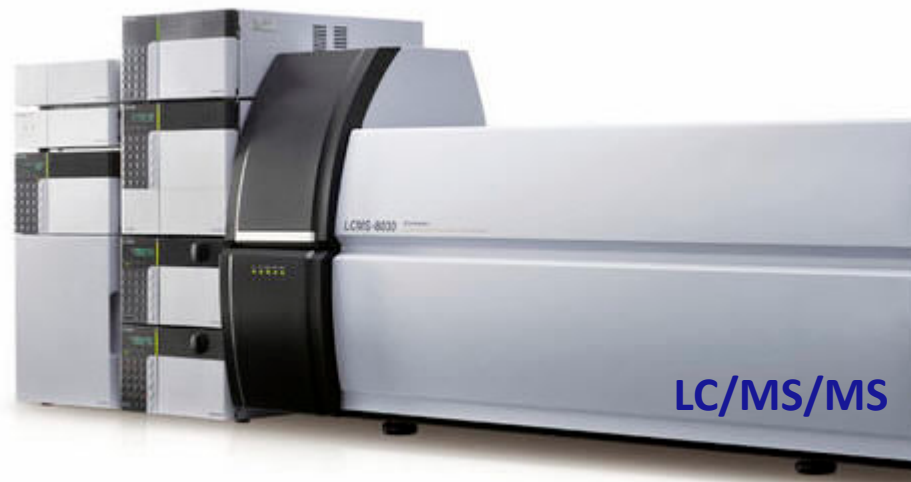
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Interpretation of results?



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- Should we specify the key analytical tools for quantitative analysis?



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QUESTIONS

