

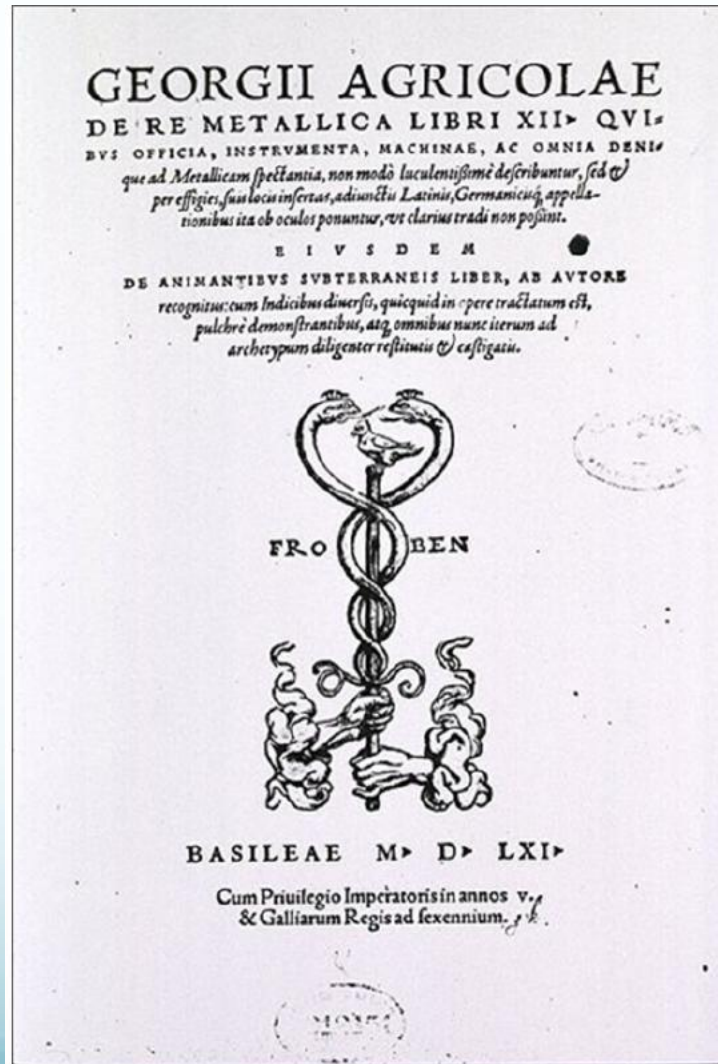
Tossicologia delle fibre d'amianto

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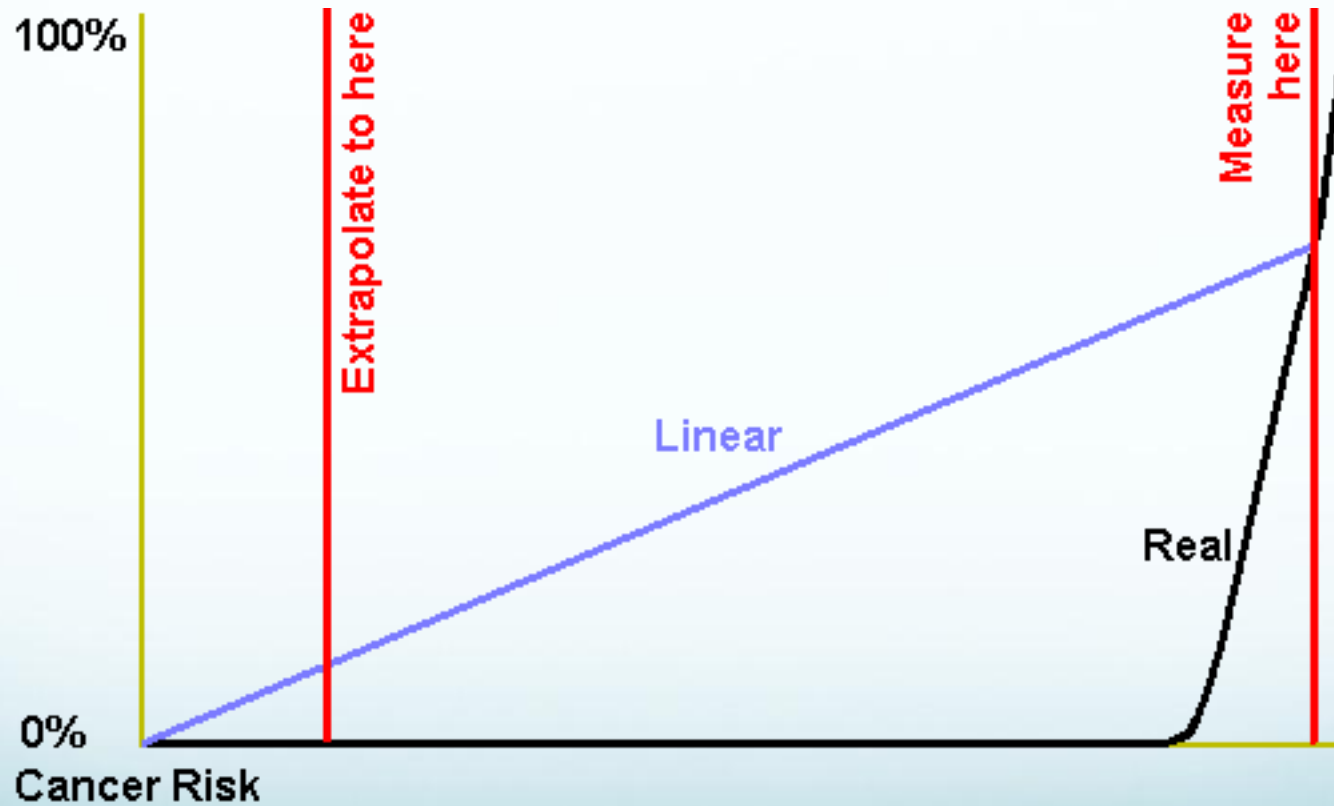
L'amianto e' cancerogeno

- L'amianto è un cancerogeno classificato sia dalla IARC (categoria 1, cancerogeno certo per l'uomo) che da diverse agenzie e istituzioni regolatorie. La classificazione di cancerogenesi si basa sull'evidenza epidemiologica per esposizione professionale per via inalatoria

La tossicologia delle fibre

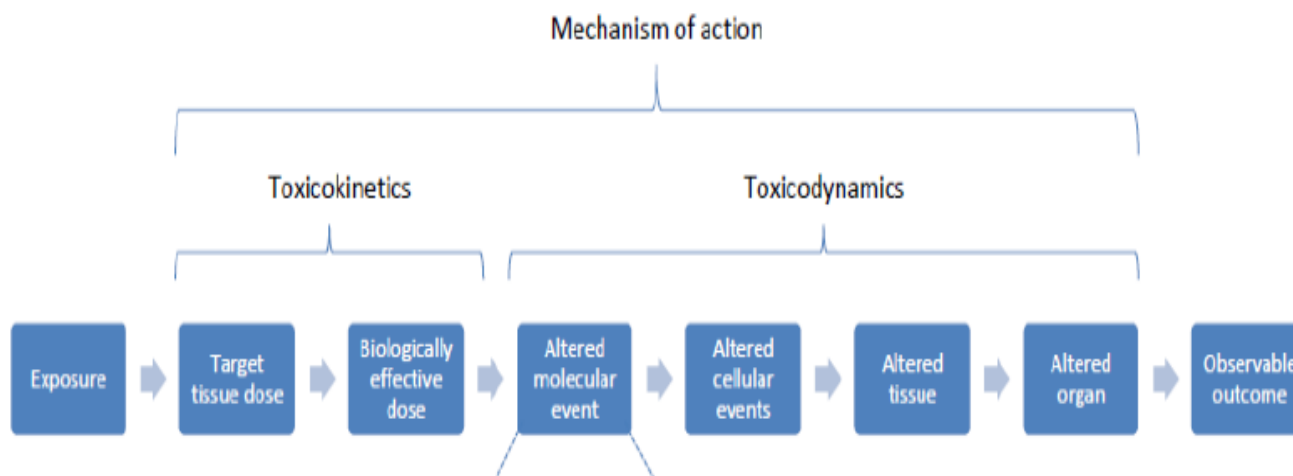


La curva dose-risposta linearizzata

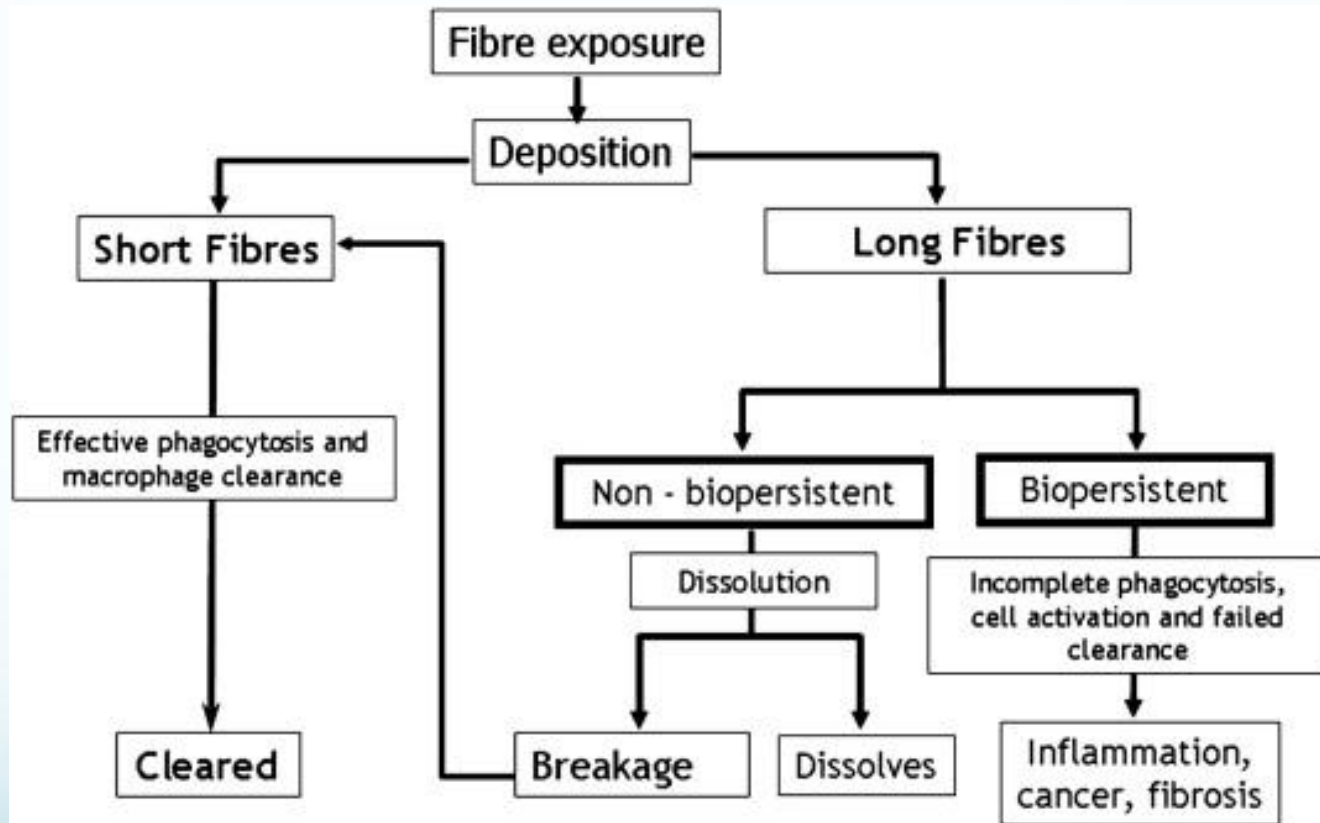


Tossicologia classica vs Tossicologia basata sull'evidenza

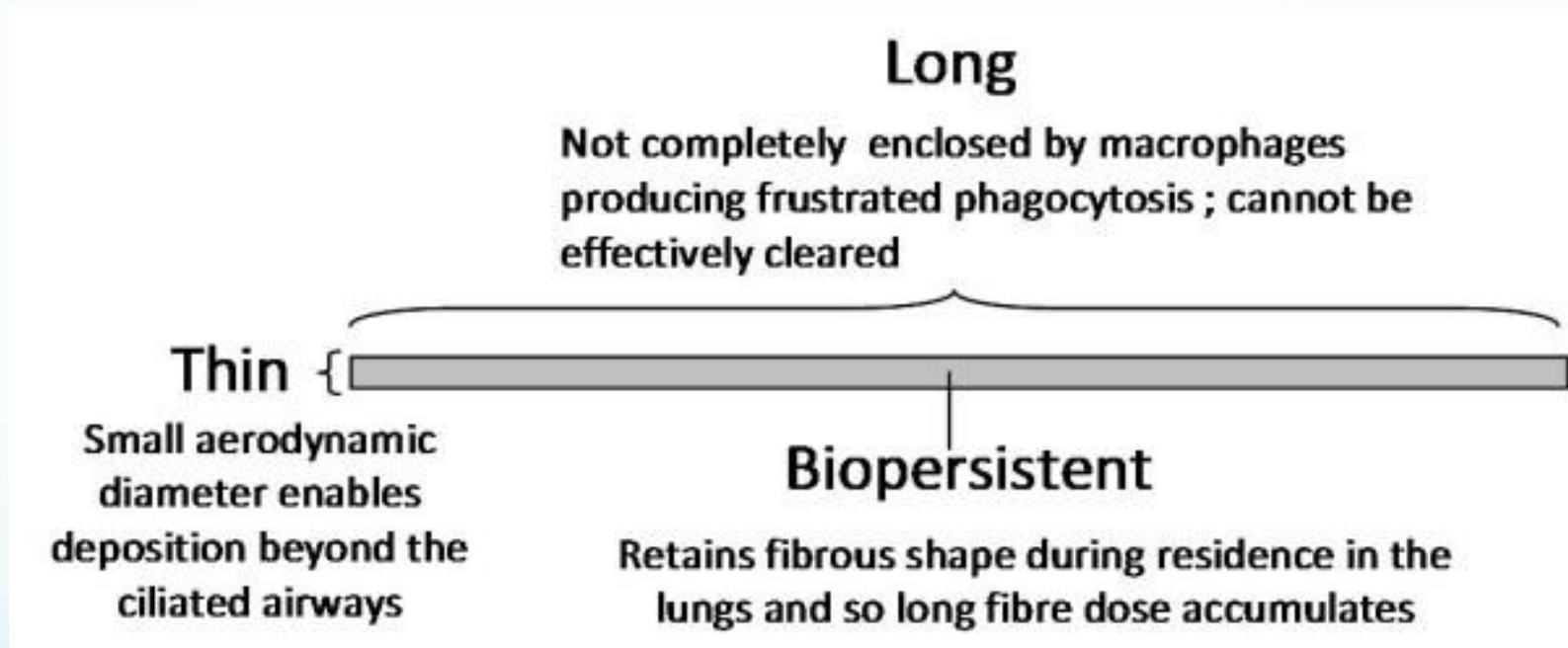
Proof-of-causality



Il paradigma della lunghezza

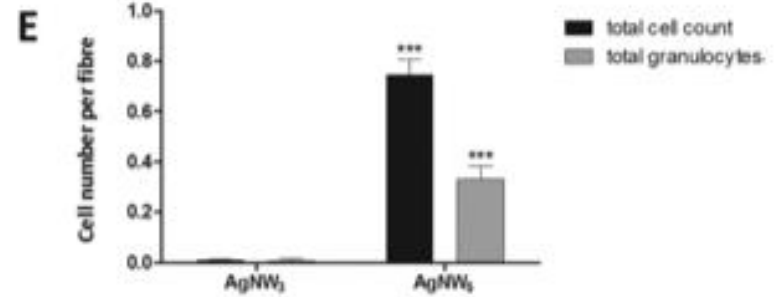
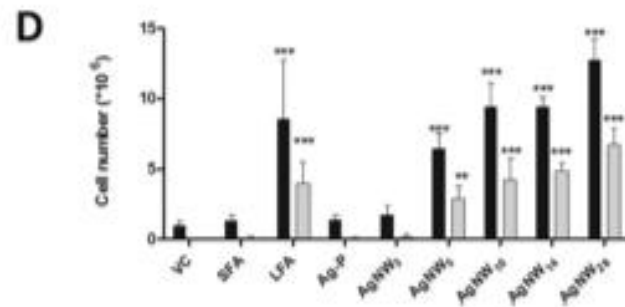
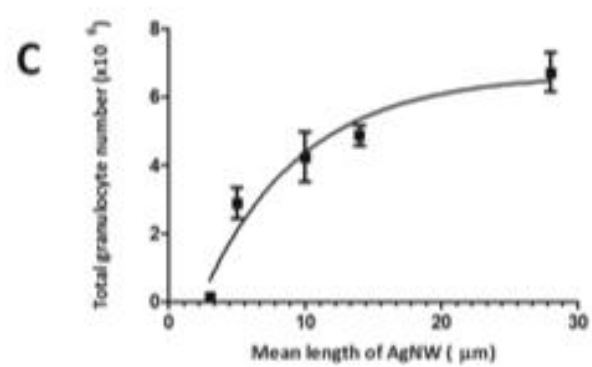
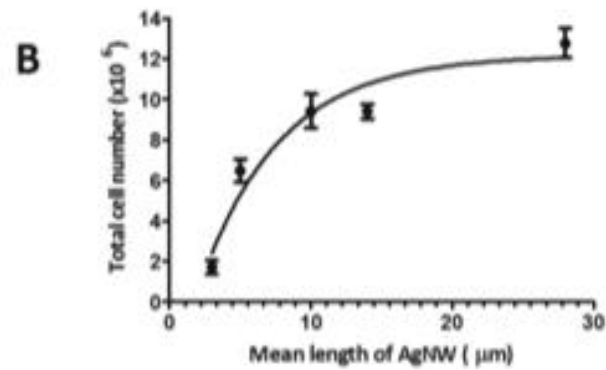
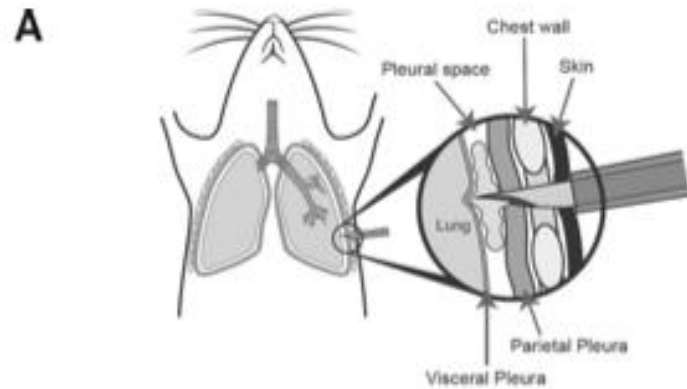


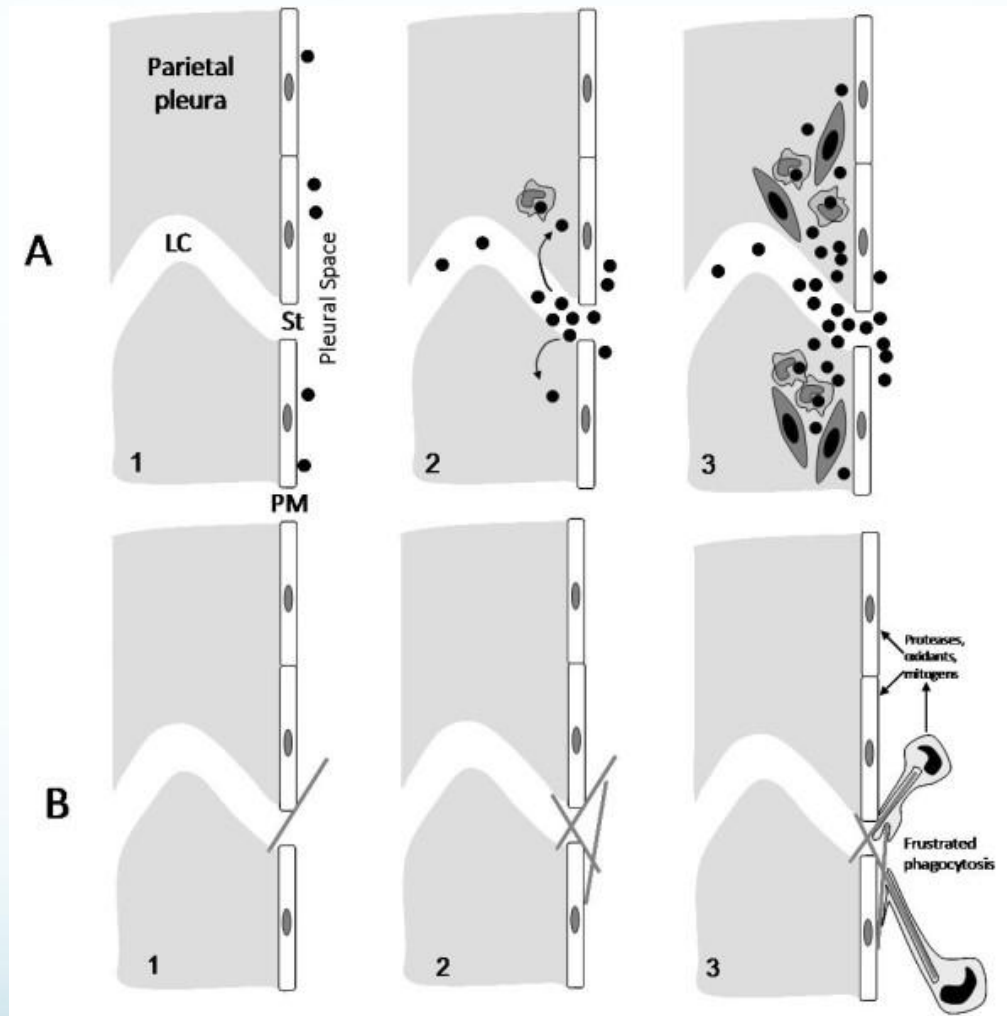
Il paradigma della lunghezza

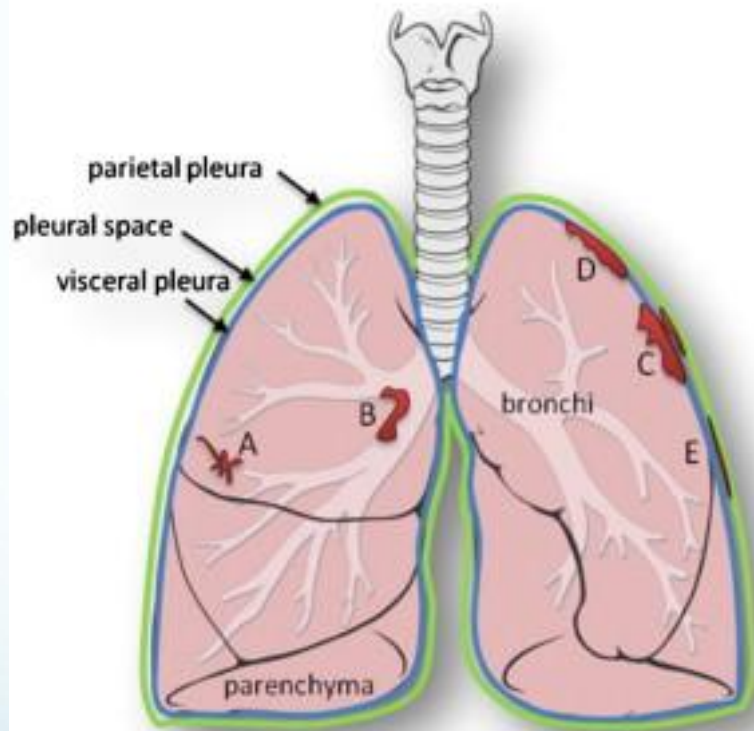


Il paradigma della lunghezza

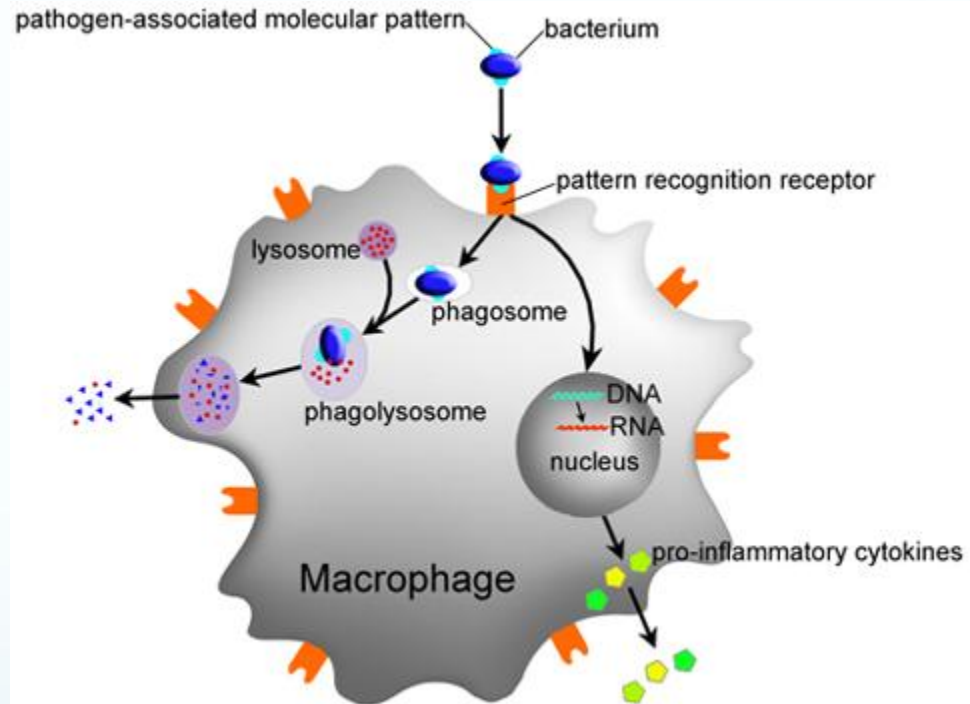
- fibre
 - particelle di amianto che presentano una lunghezza di almeno 5 micrometri e un rapporto lunghezza:larghezza superiore o uguale a 3:1
 - le fibre lunghe (più grandi di 5 micrometri) sono le maggiori imputate nel causare un danno rispetto a quelle più corte (meno di 2,5 micrometri).
 - Fibre fino a 62.5 micron in pazienti affetti da mesotelioma

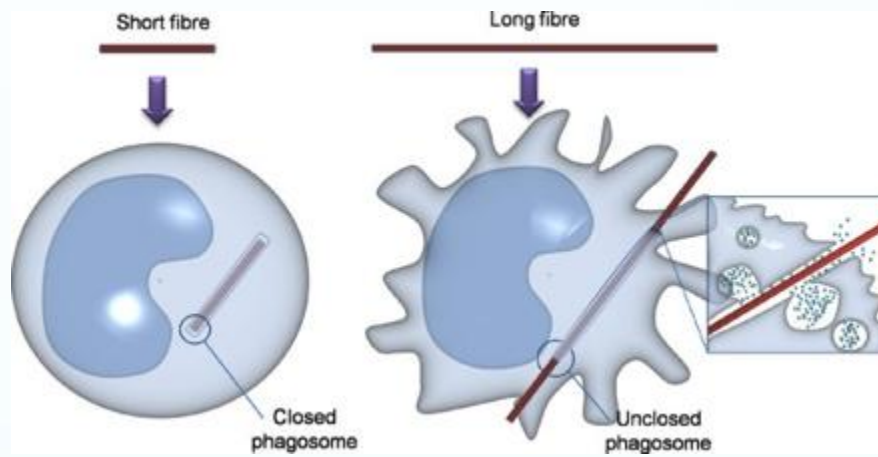


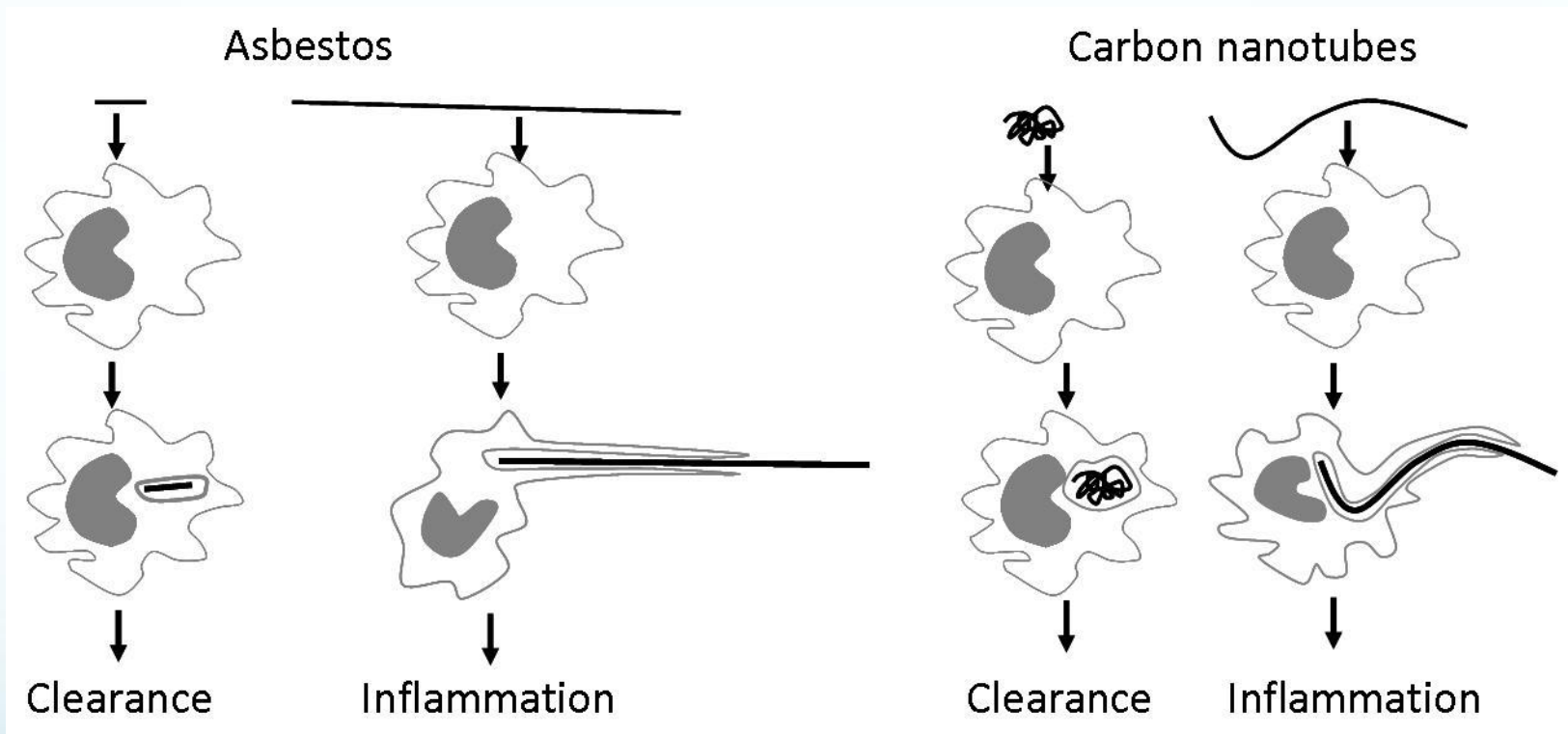




Label	Pathology	Site
A	Asbestosis	Parenchyma
B	Bronchogenic carcinoma (lung cancer)	Bronchi
C	Mesothelioma	Pleurae
D	Pleural fibrosis	Pleurae
E	Pleural plaque	Parietal pleura

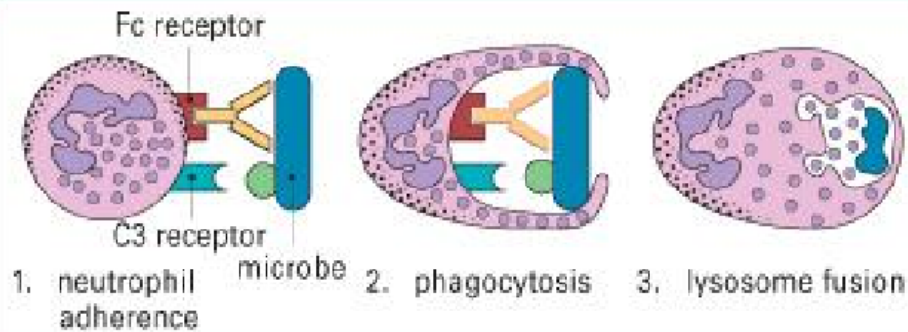




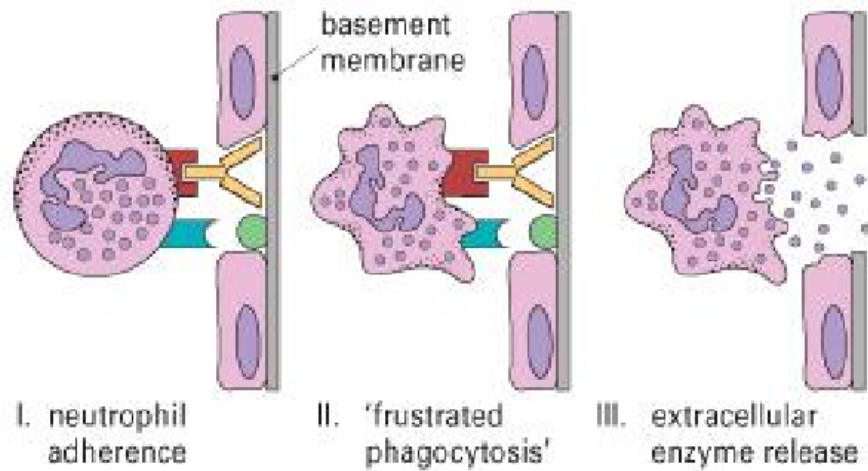


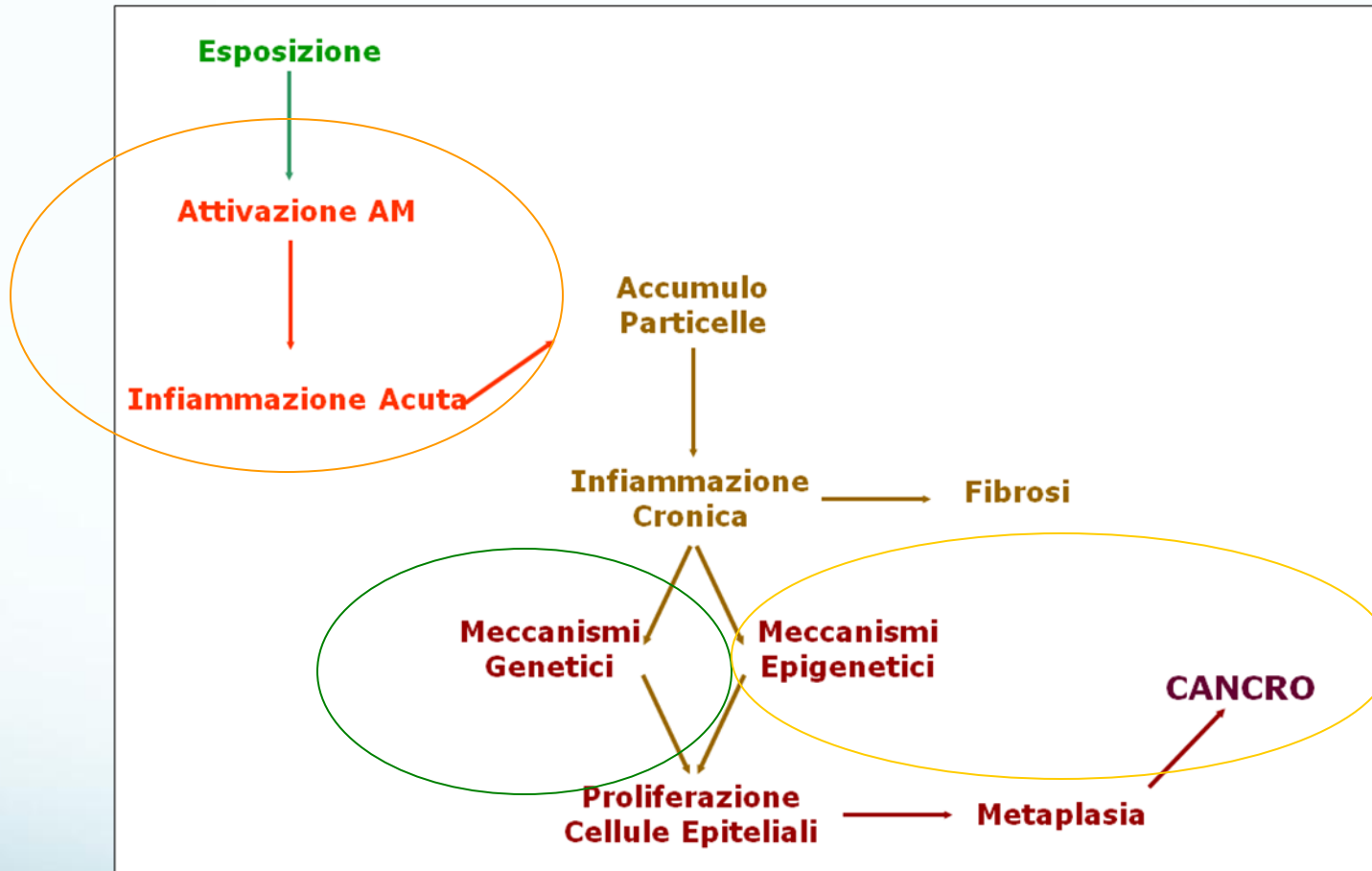
Damage mechanisms

normal antimicrobial action

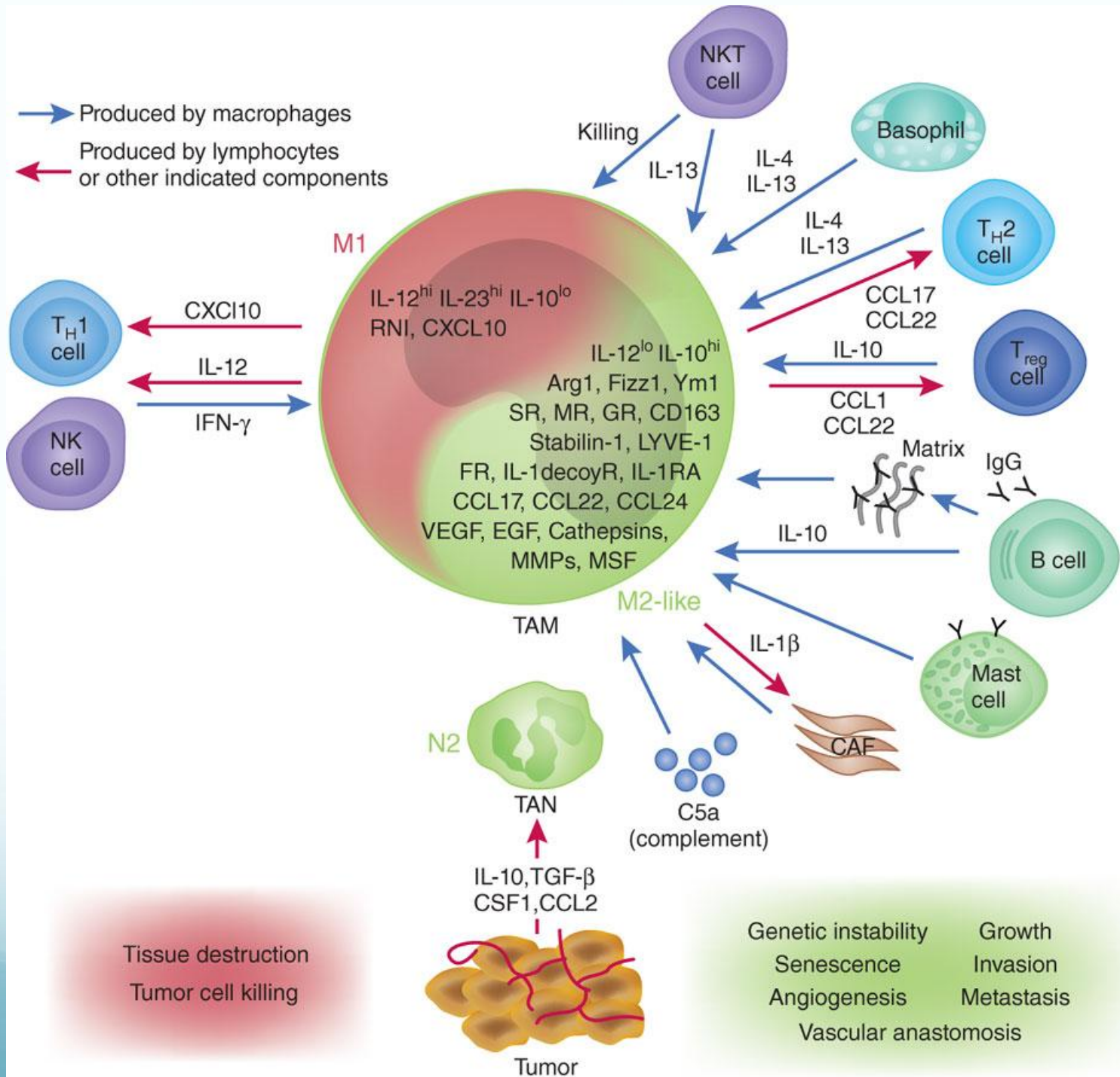


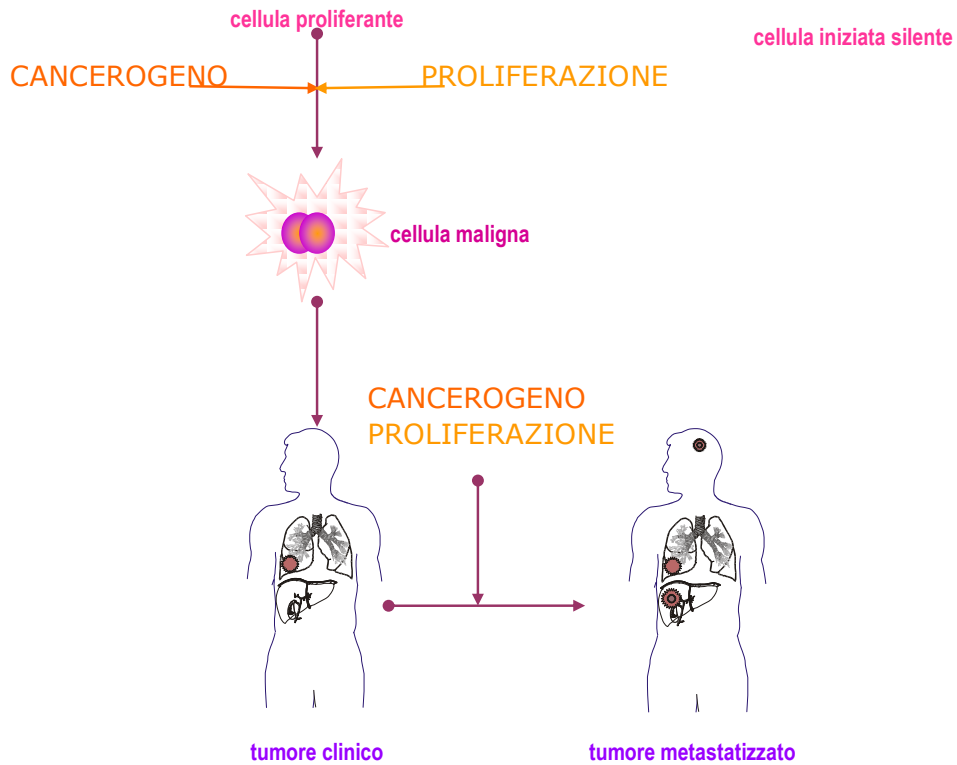
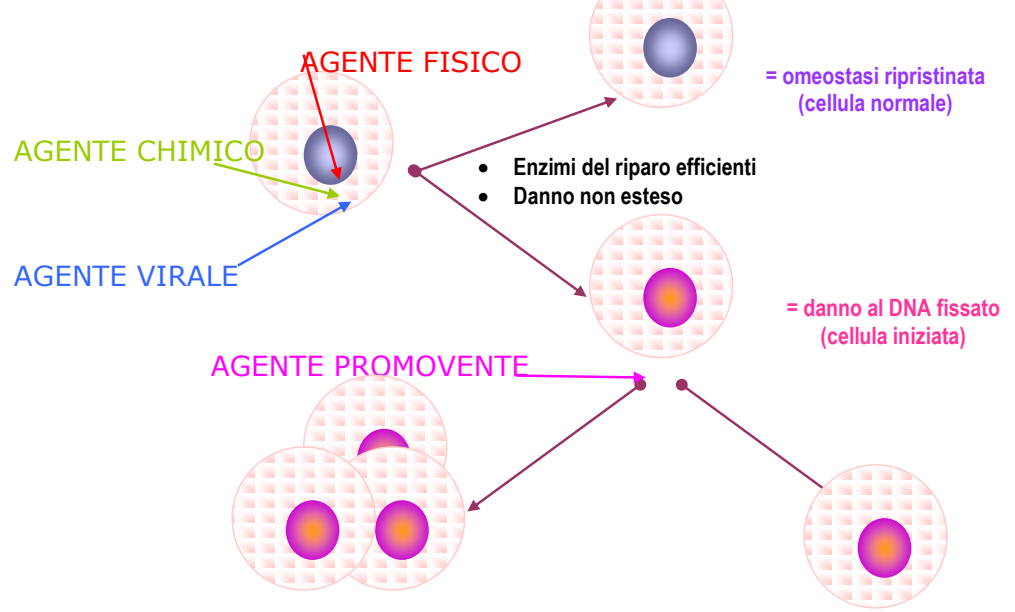
type II hypersensitivity reaction

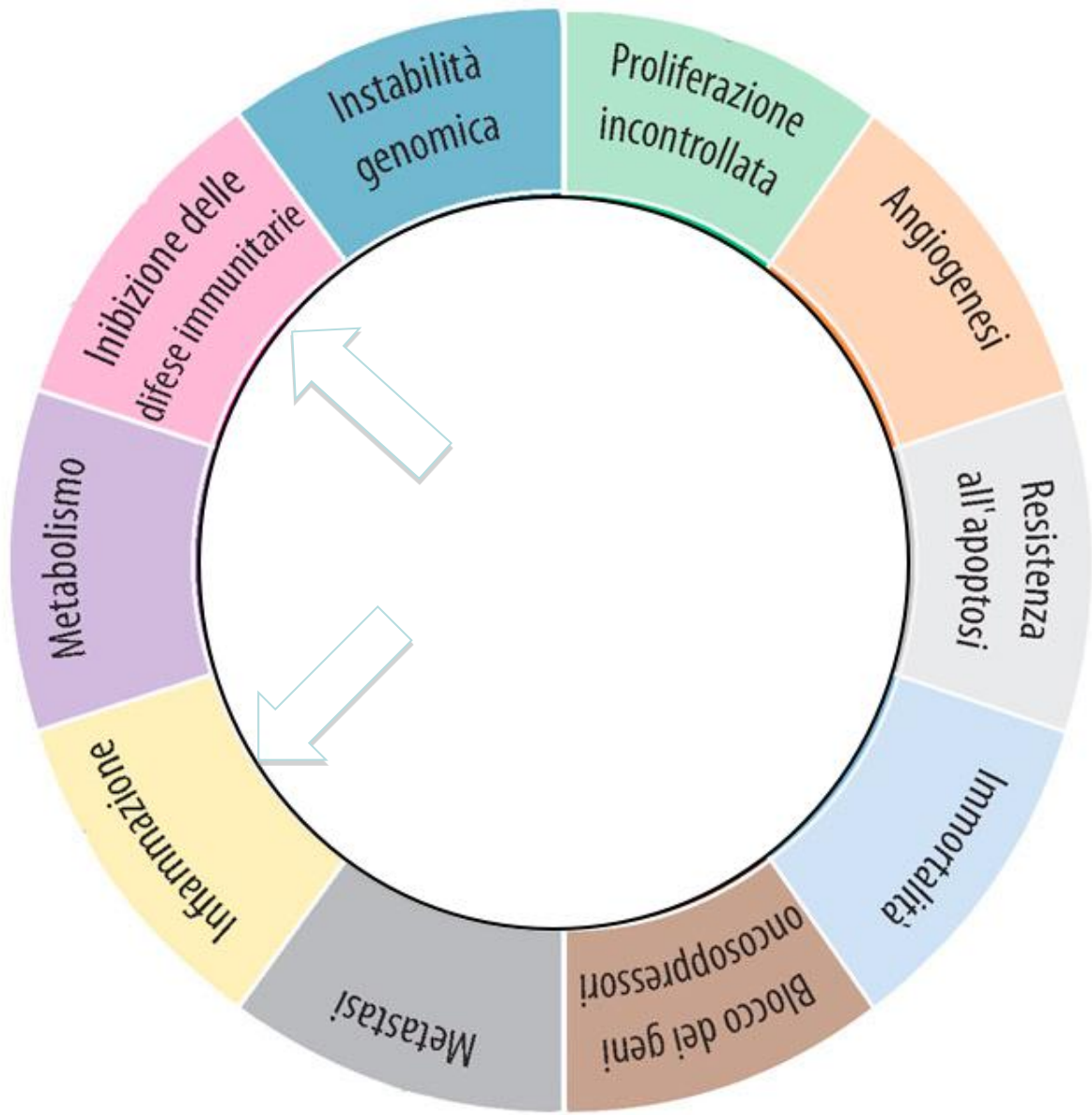


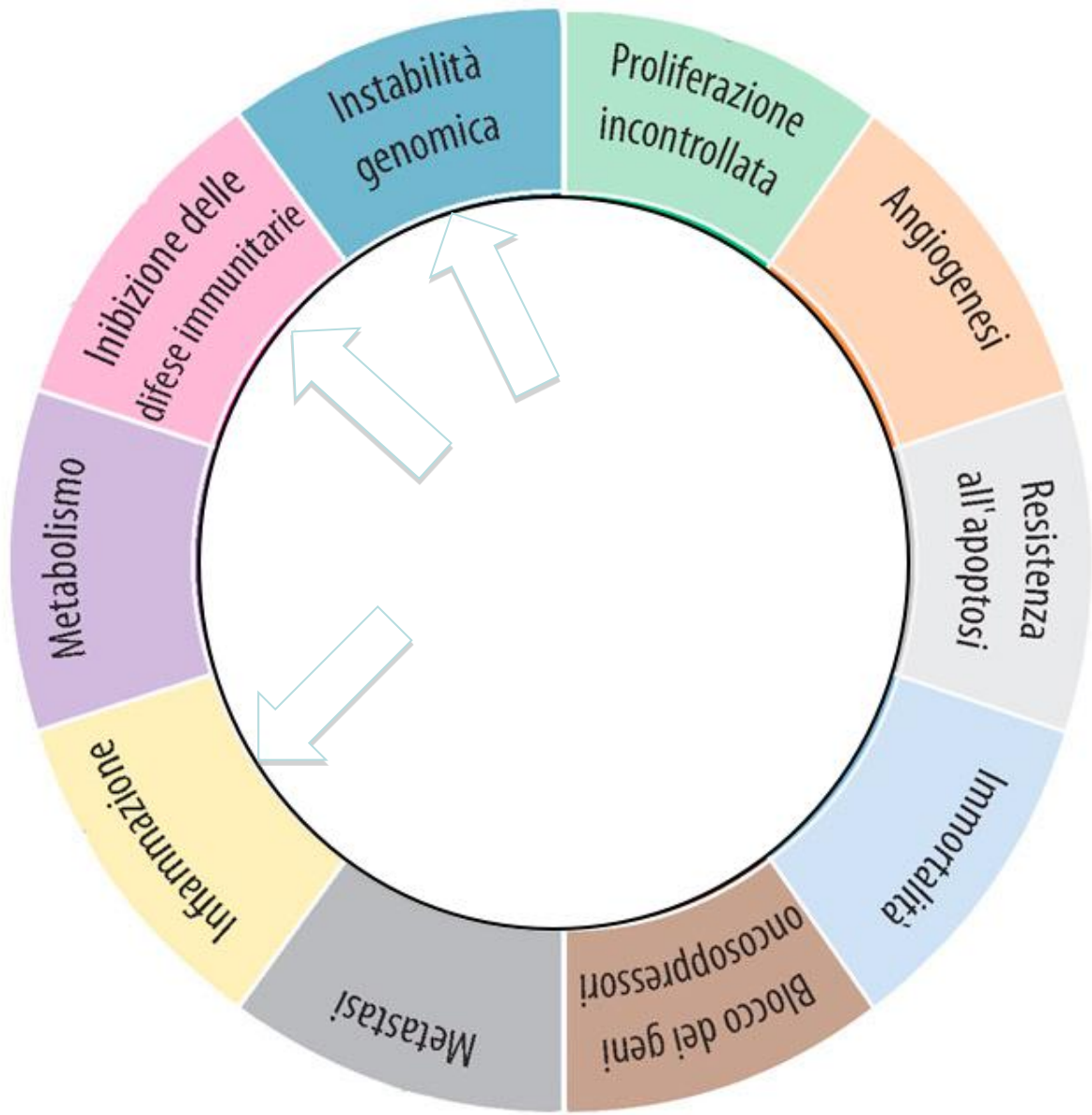


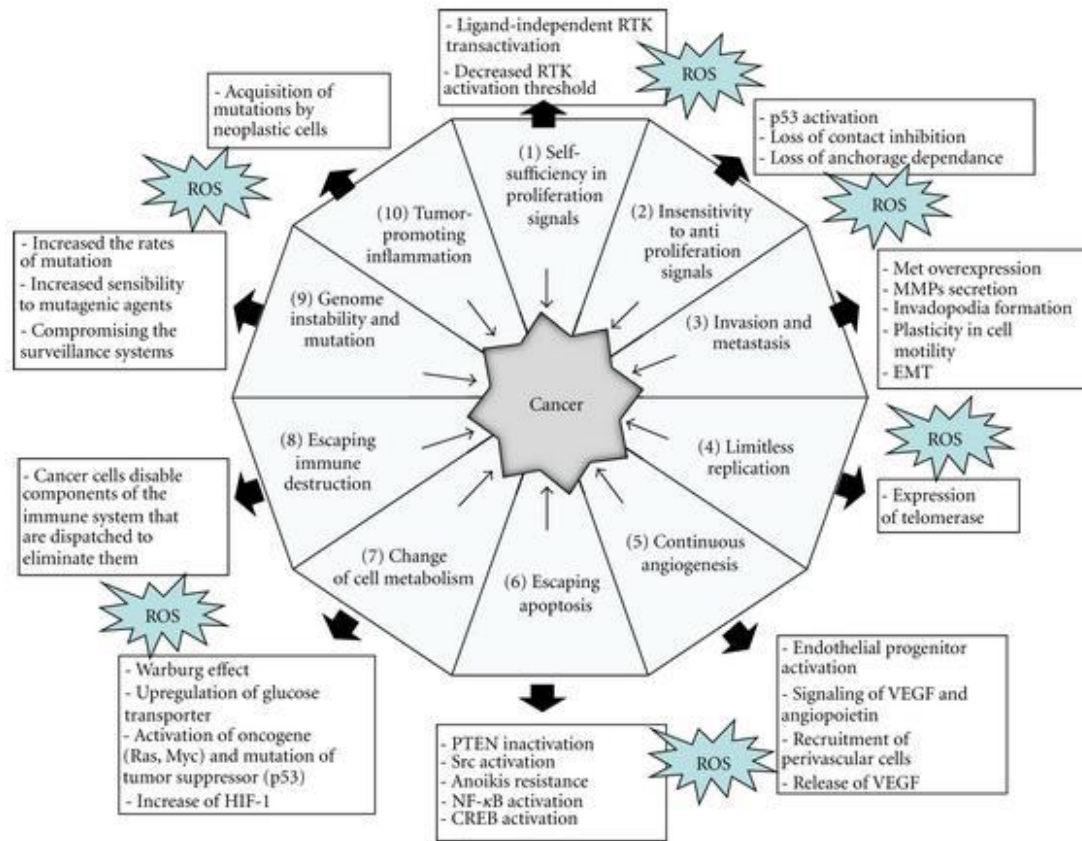
→ Produced by macrophages
 ← Produced by lymphocytes
 or other indicated components











Dose-response function with a no-effect region

