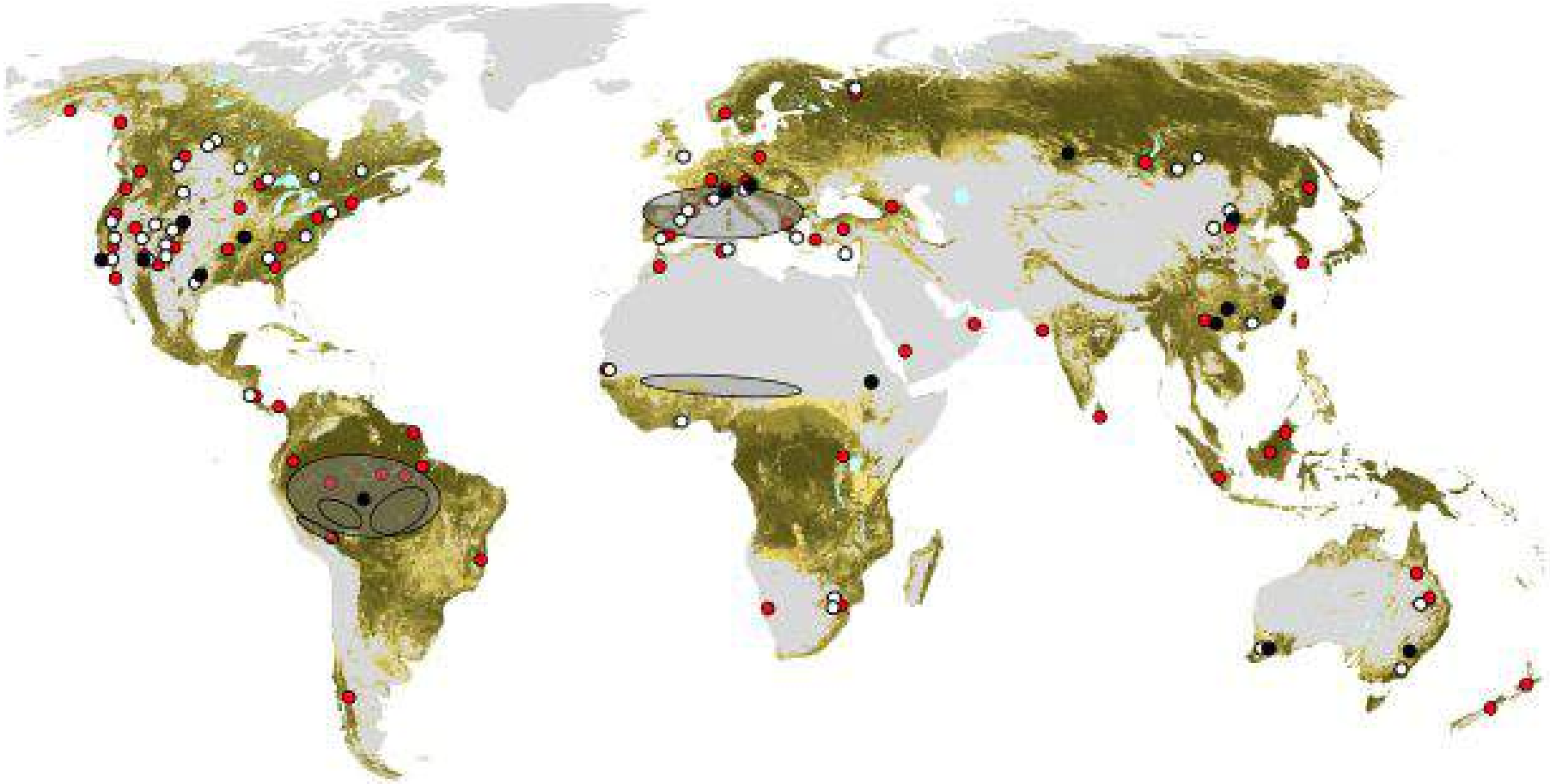
PLAN NATIONAL DÉPÉRISSEMENT DU VIGNOBLE

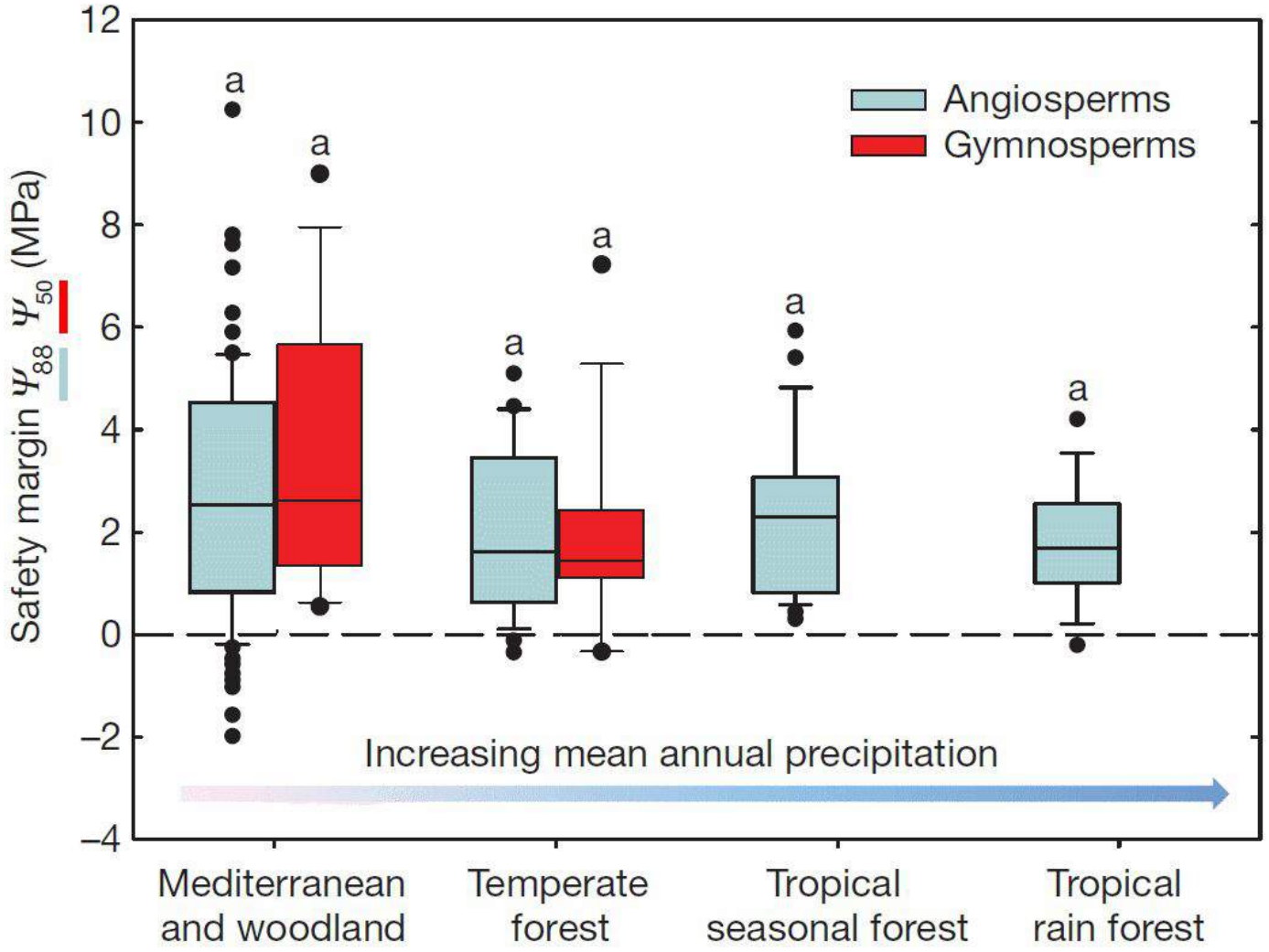
Peut-on tirer des leçons des expériences forestières pour comprendre le dépérissement de la vigne?

Recensement des évènements de mortalités forestières



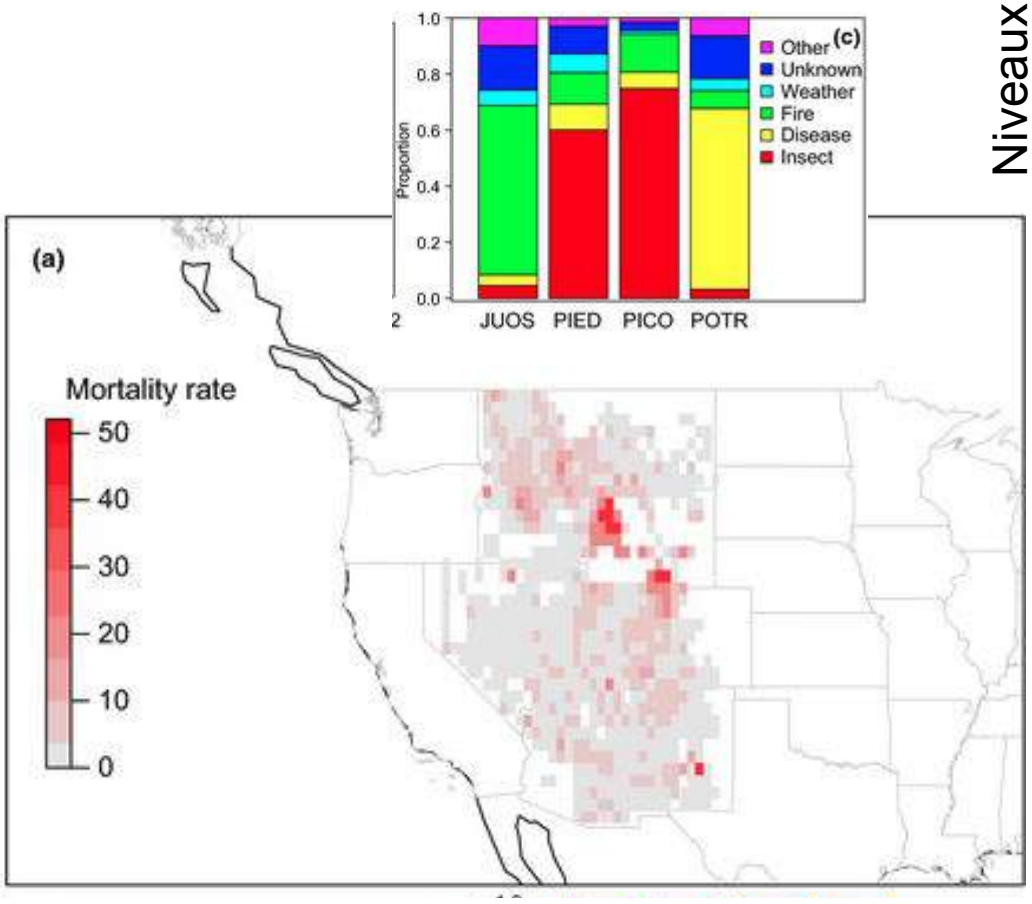
Allen et al. 2015 Ecosphere

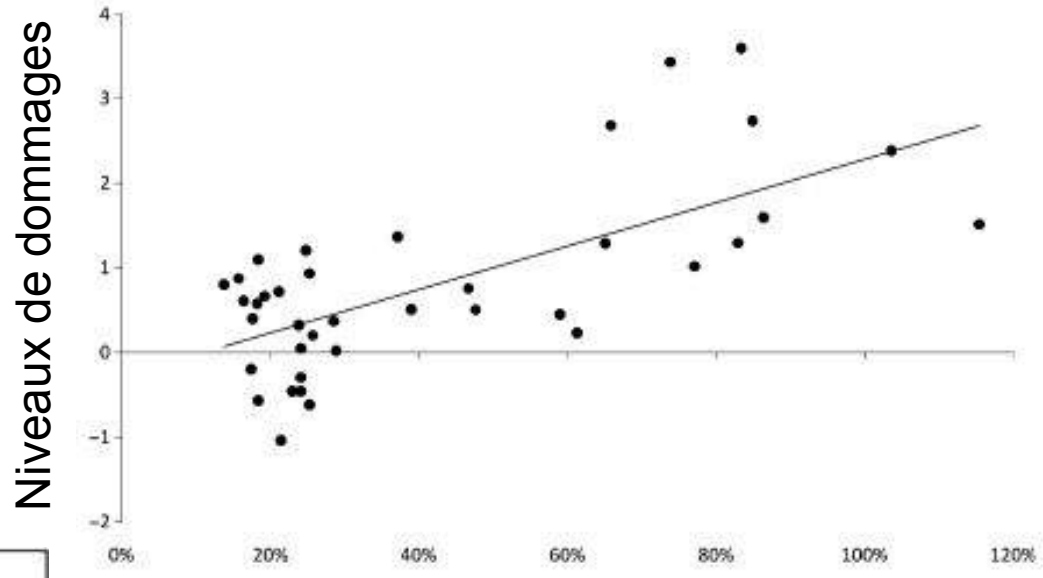
Faibles marges de sécurité hydraulique



Choat et al. 2012 Nature

Interactions agents pathogènes/sécheresse

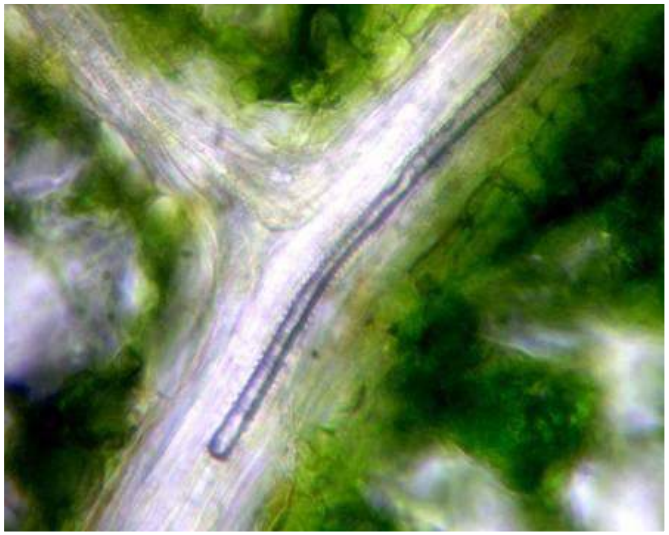


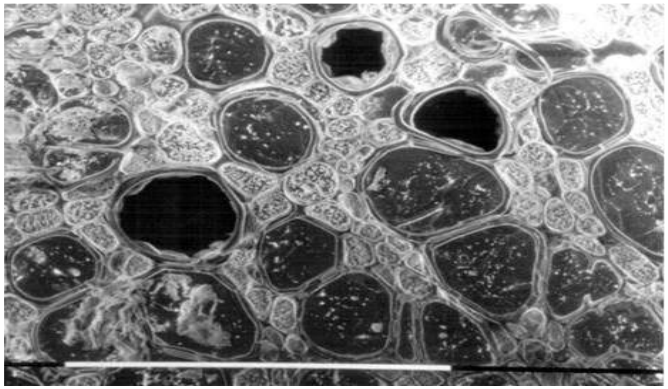


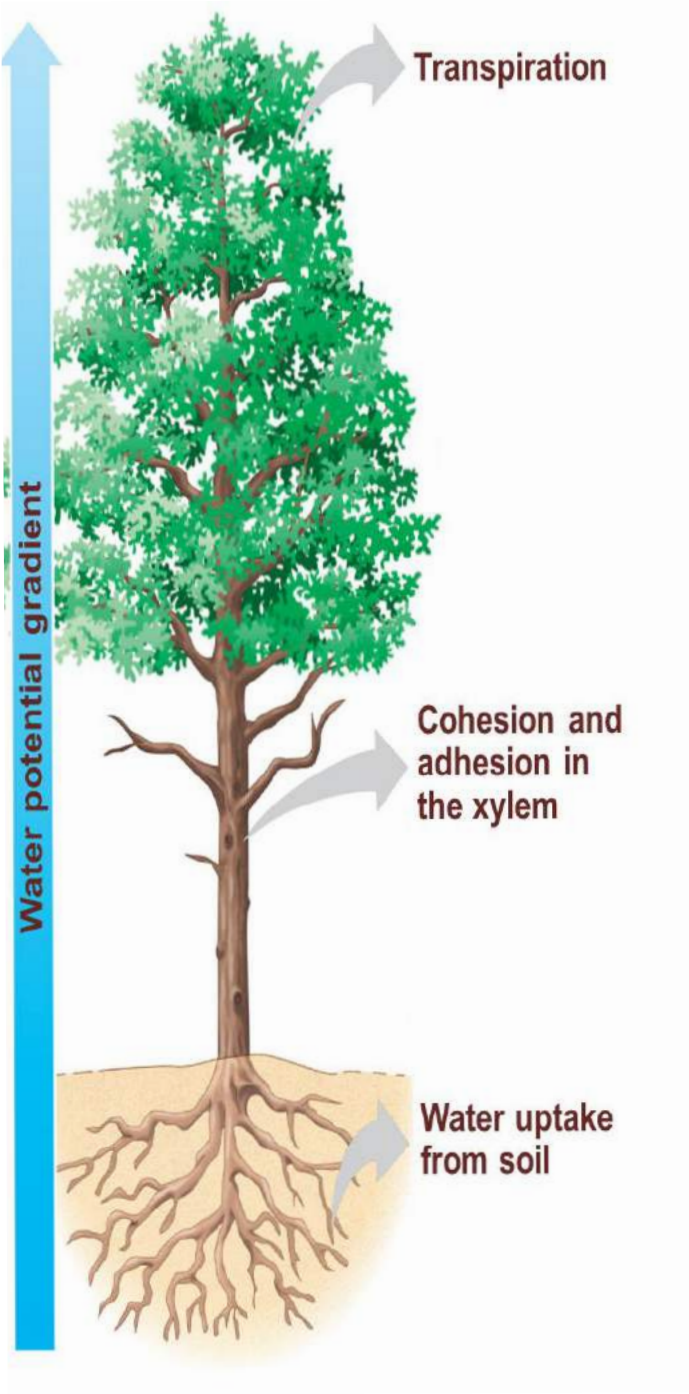
Jactel et al. 2012 GCB

Anderegg et al. 2015 New Phytol

L'Embolie xylémienne





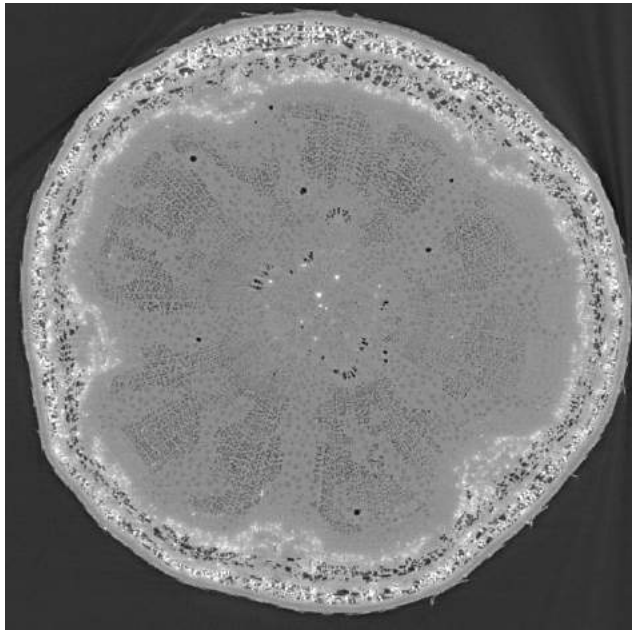


Etudier l'appareil vasculaire

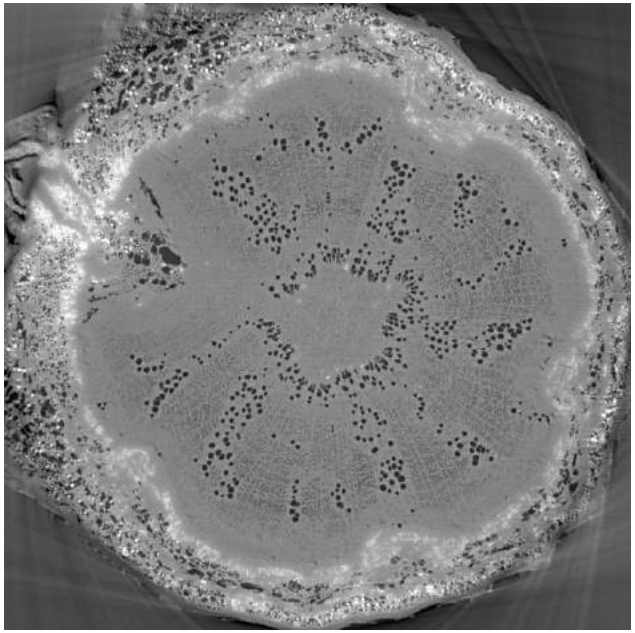
Tomographie à rayon X

X-ray micro-CT scans - Source : http://sylvain-delzon.com/

Torres *et al.* 2017 New Phytol



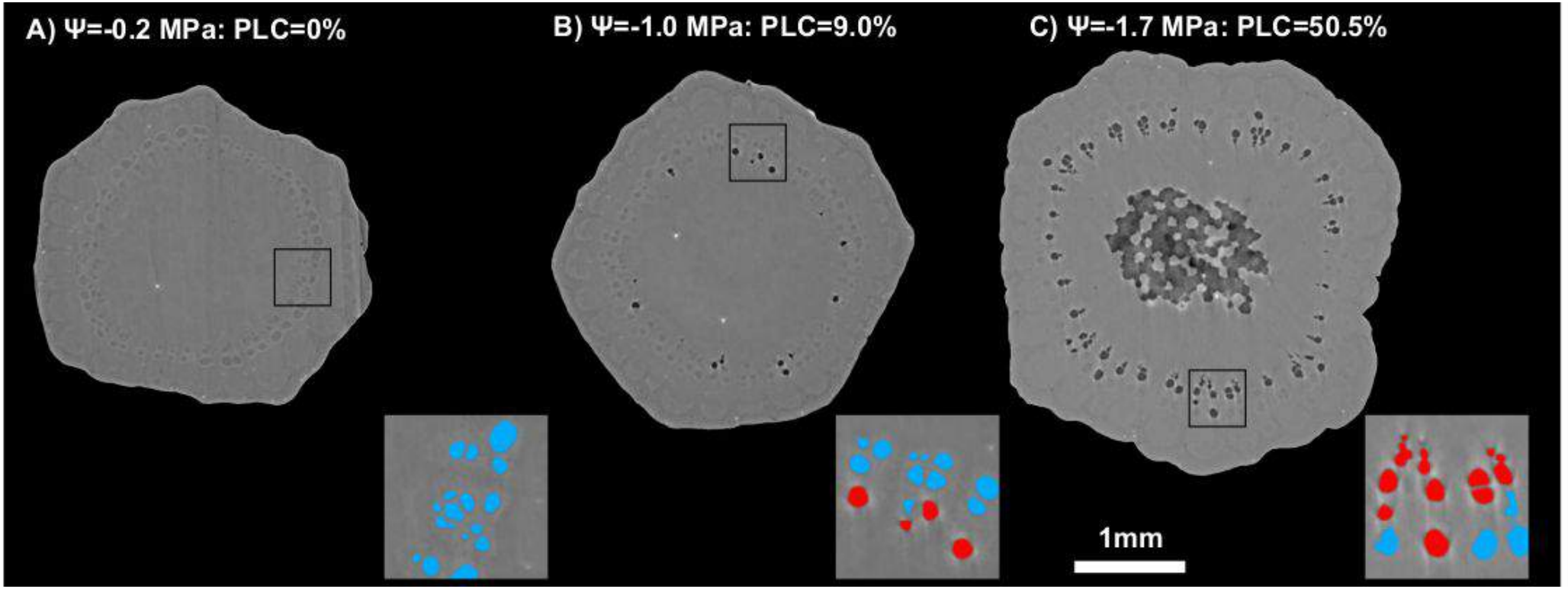
Torres *et al.* 2015 Plant Phys



Cochard *et al.* 2016 PC&E

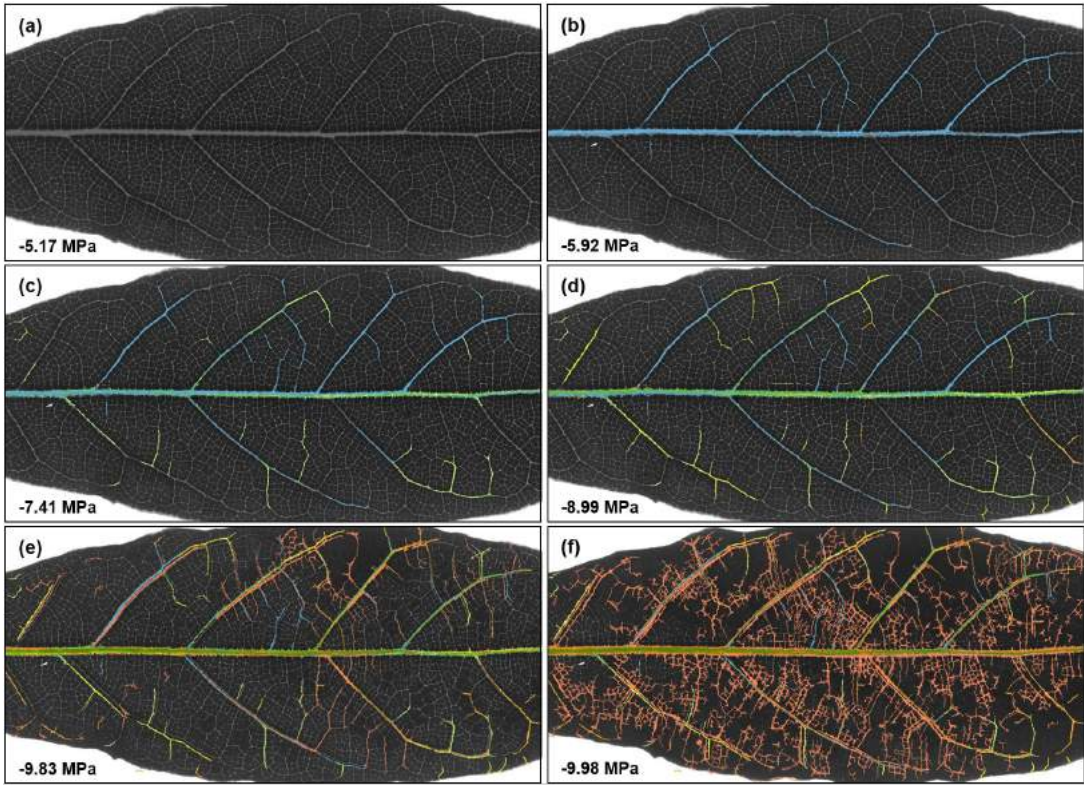
Synchrotron technology

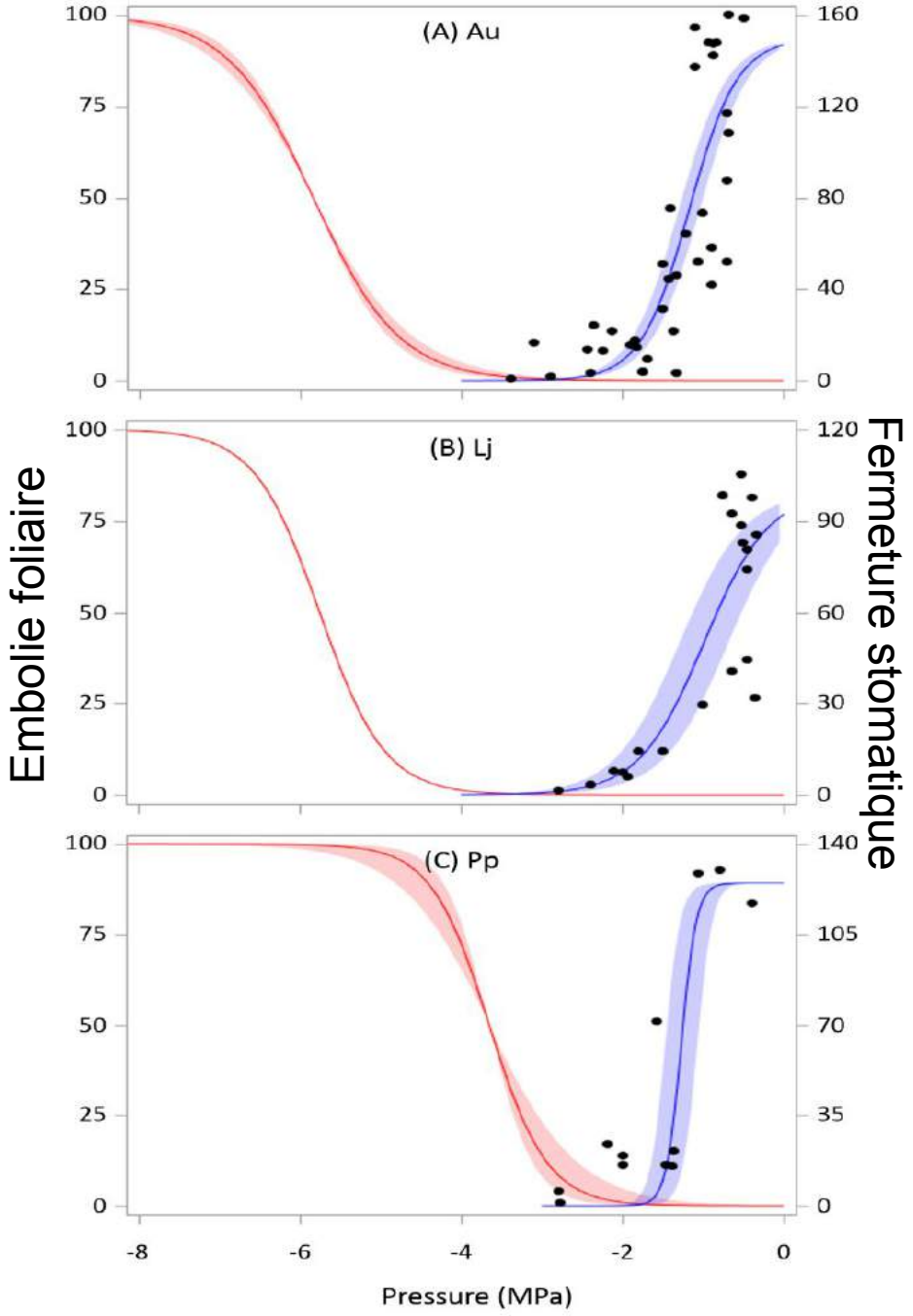
Vulnérabilité de la vigne à l'embolie



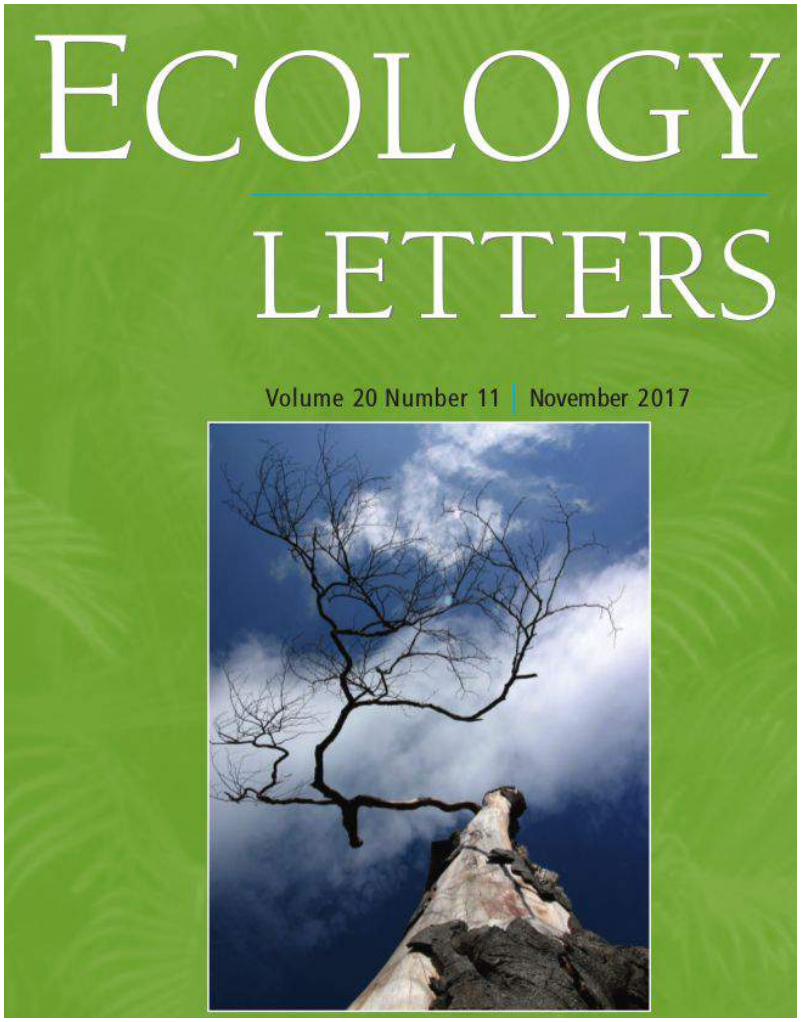
Charrier *et al.* 2016 Plant Phys

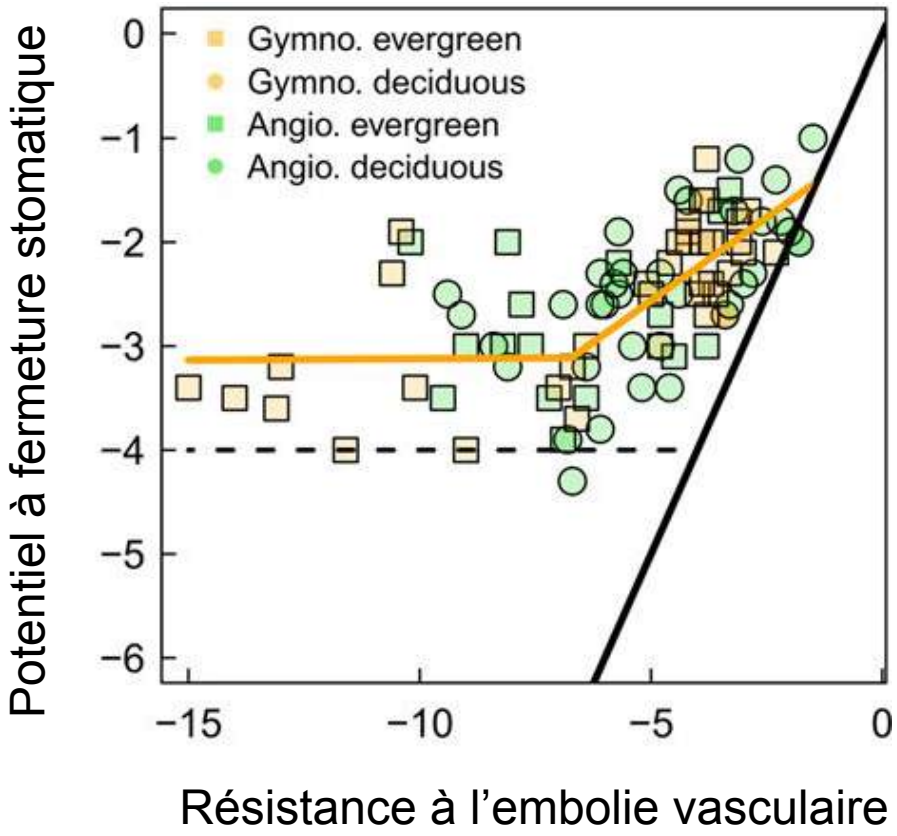
Mortalité foliaire, contrôle stomatique et embolie





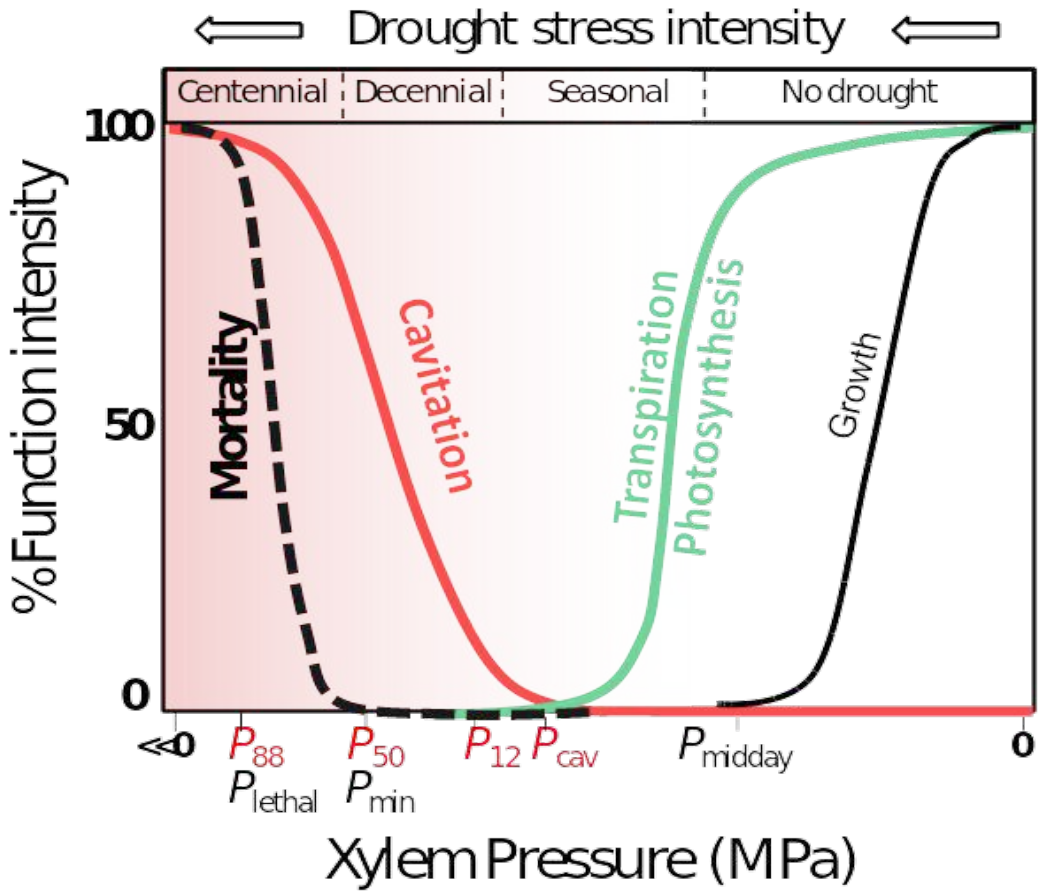
Une fermeture stomatique précoce universelle





Martin StPaul, Delzon & Cochard 2017

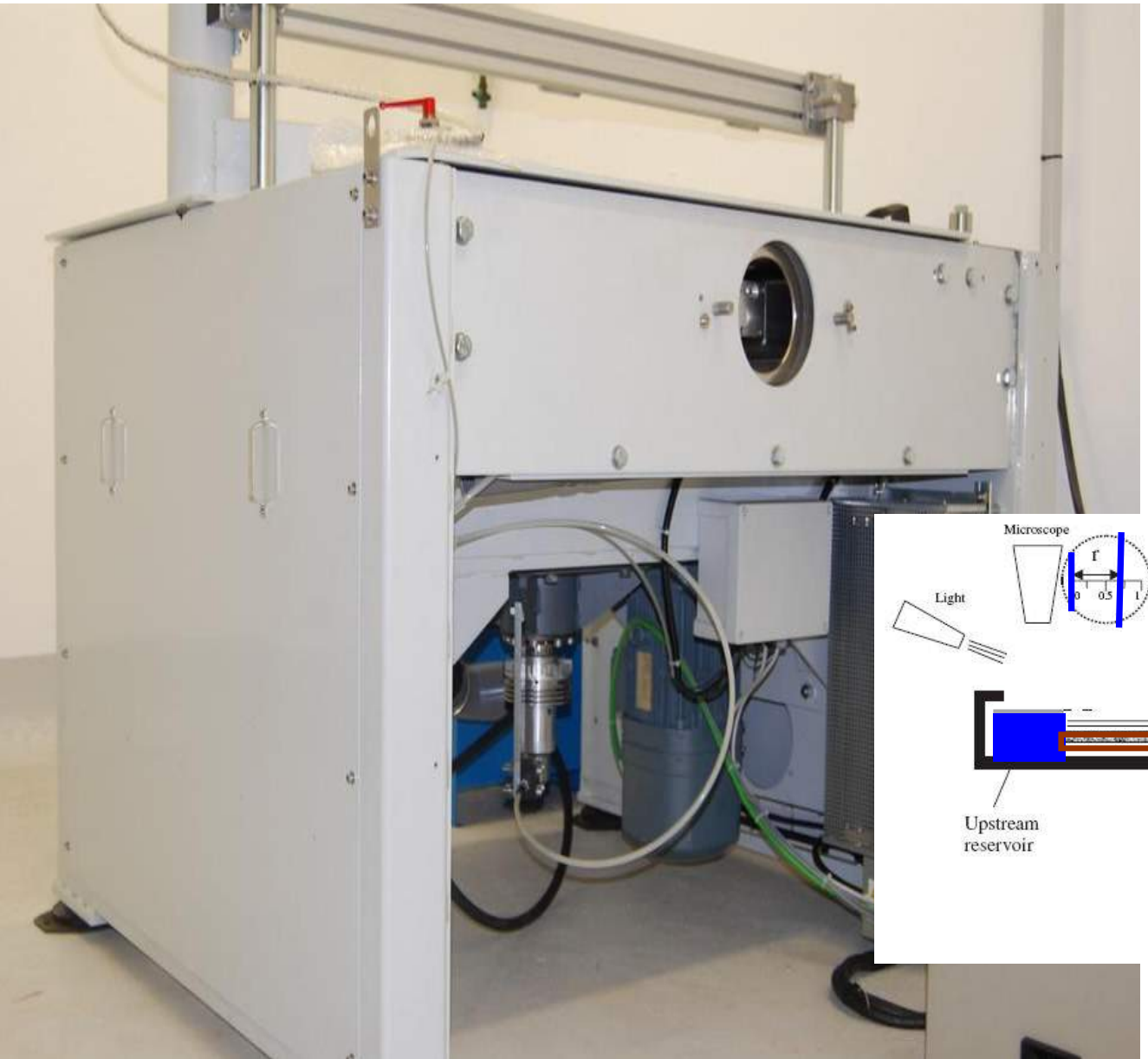
Mieux prédire la mortalité

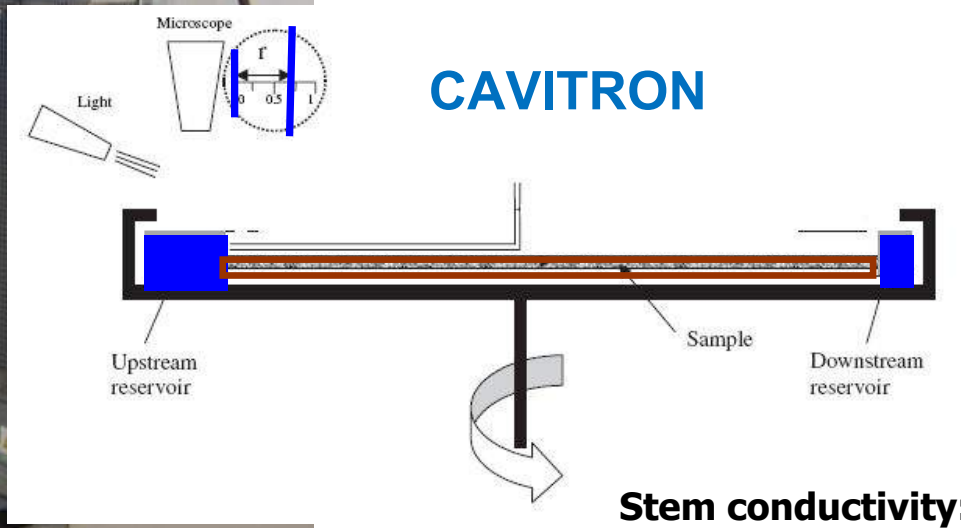


- L'embolie vasculaire conduit à la mort
- identification du seuil létal
- Interactions agents pathogènes/sécheresse
- études des mécanismes sous-jacents en cours

Delzon & Cochard 2014 New Phytol

Un nouveau prototype pour mesurer les espèces à vaisseaux longs: le MEGA-CAVITRON





CAVITRON

Stem conductivity:
$K = (dr/dt) / 0.5\ \rho\ \omega 2\ [R2 - (R-r)2]$

Un nouveau prototype pour mesurer les espèces à vaisseaux longs: le MEGA-CAVITRON