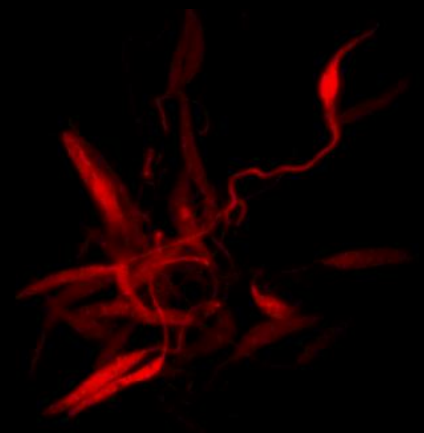


Phosphoinositides' involvement in *Leishmania donovani* phagocytosis

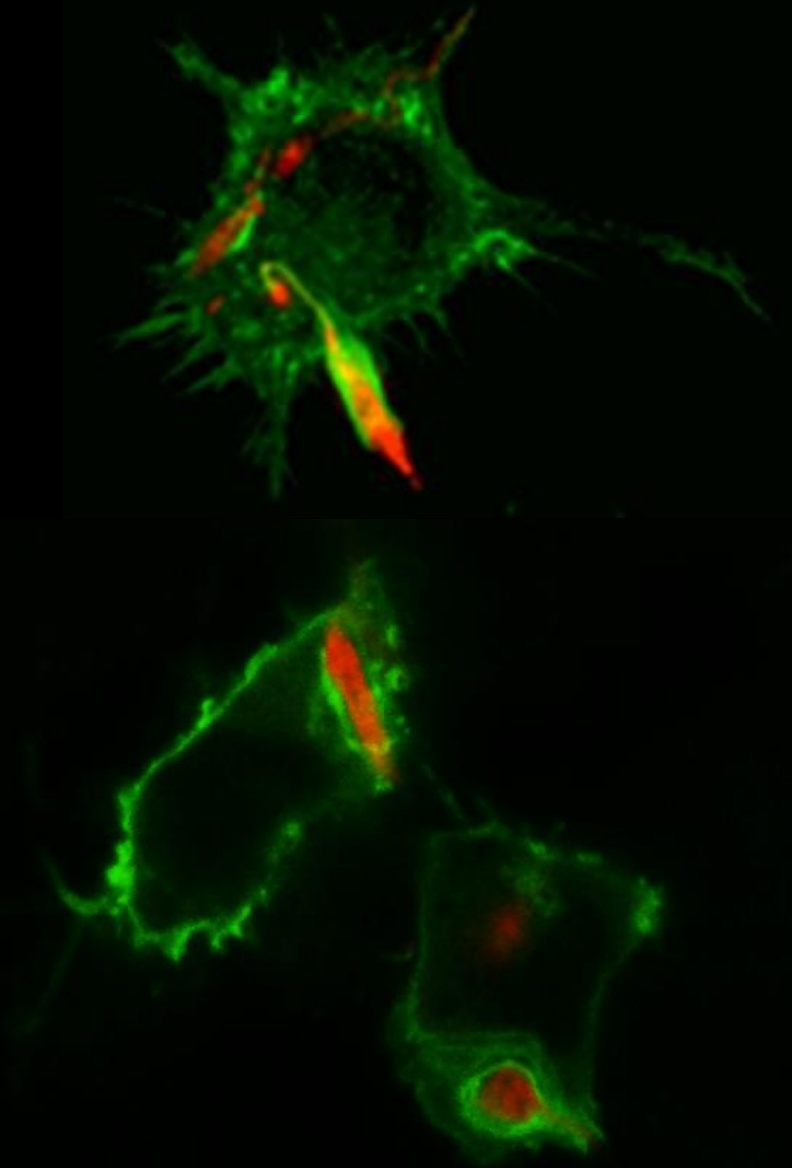
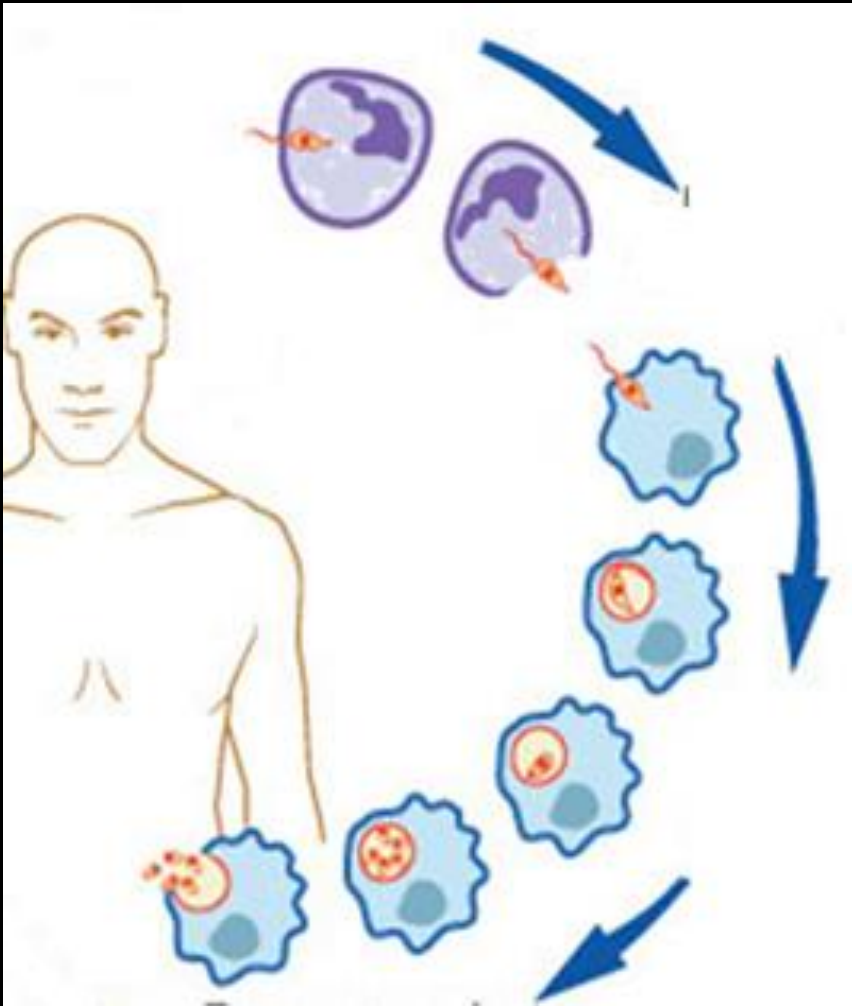
Amalia Papadaki, Haralabia Boleti

*Intracellular parasitism group/Molecular Parasitology Laboratory
& Light Microscopy Unit*

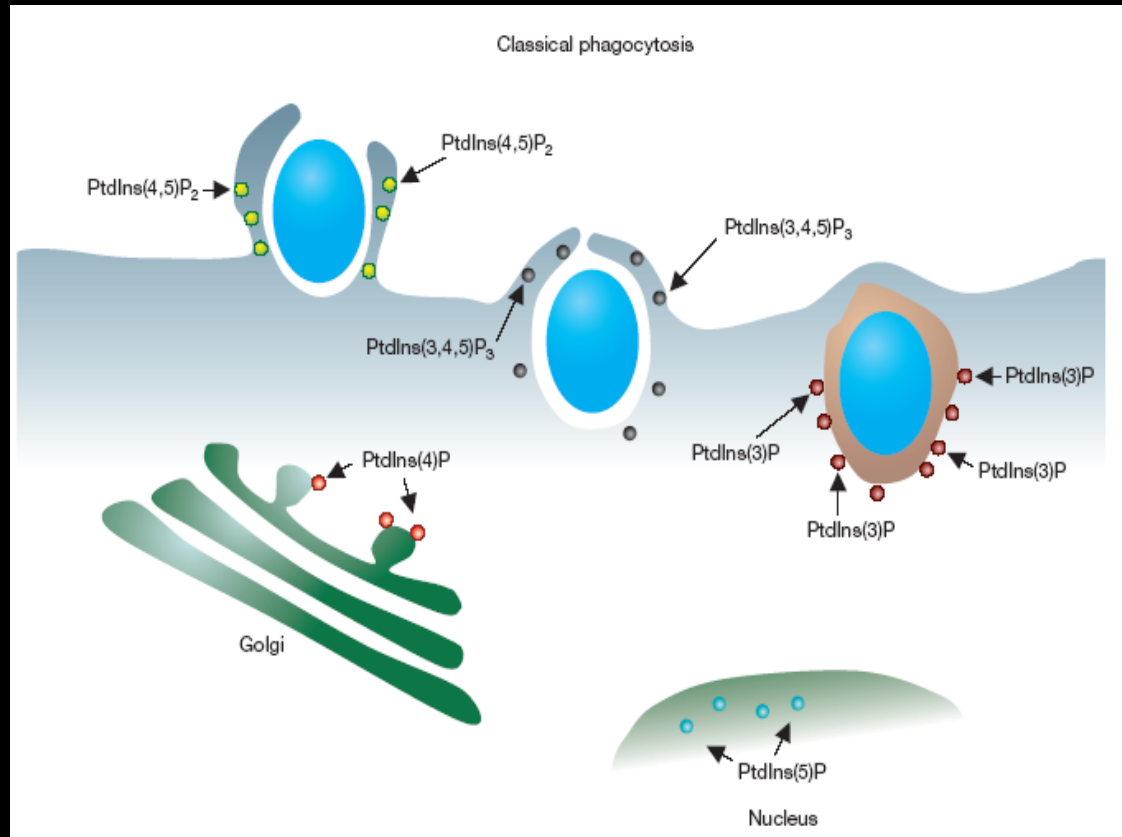
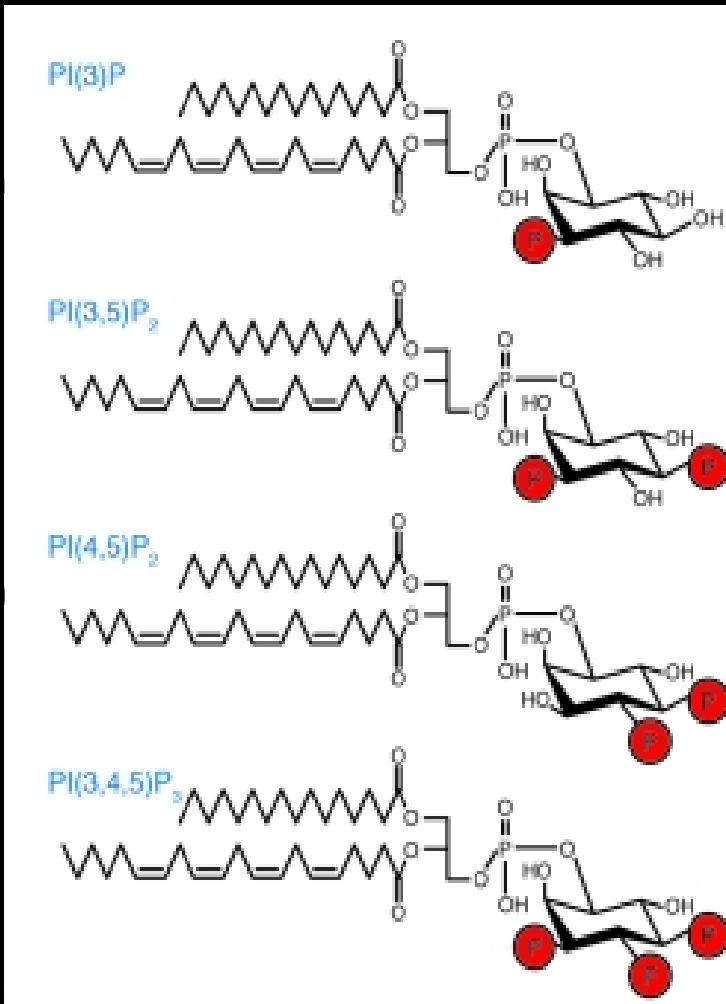
Institut Pasteur Hellenique
GREECE



Leishmania donovani phagocytosis



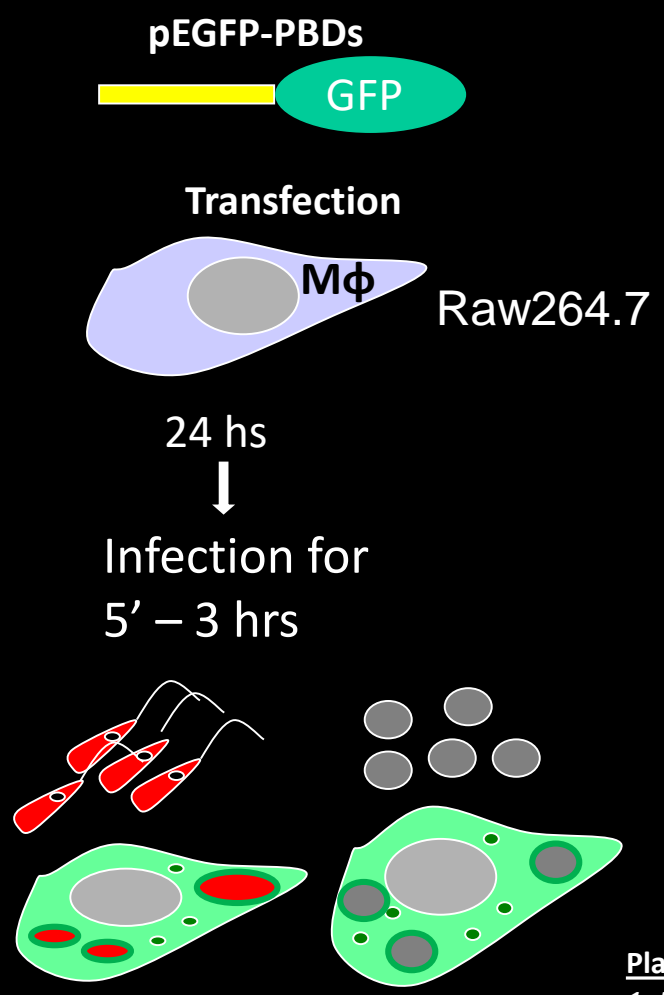
Phosphoinositides (PIs) in phagocytosis



Pizarro-Cerdá & Cossart 2004. *Nat. Cell Biol.*

Methodological approach:

Phagocytosis assay



PI binding domains	Protein	PIs
PH _(1,2)	PLCδ1	PI(4,5)P2
	Btk	PI(3,4,5)P3
PX ₍₃₎	p40phox of NADPH oxidase	PI3P

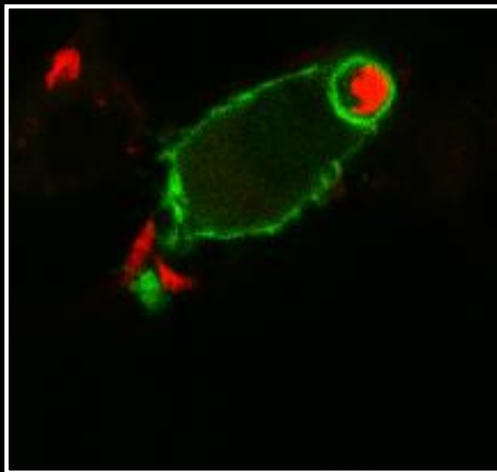
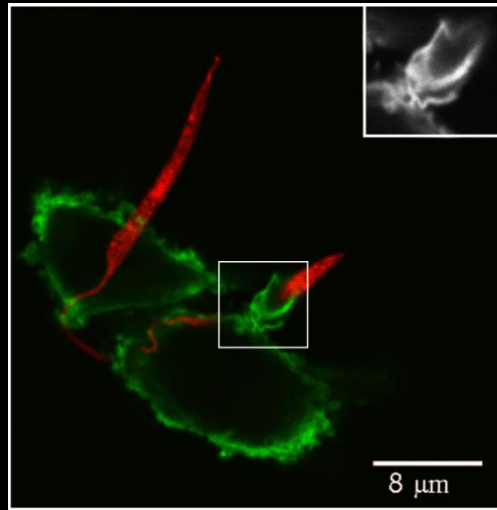


Plasmids were gifts from:

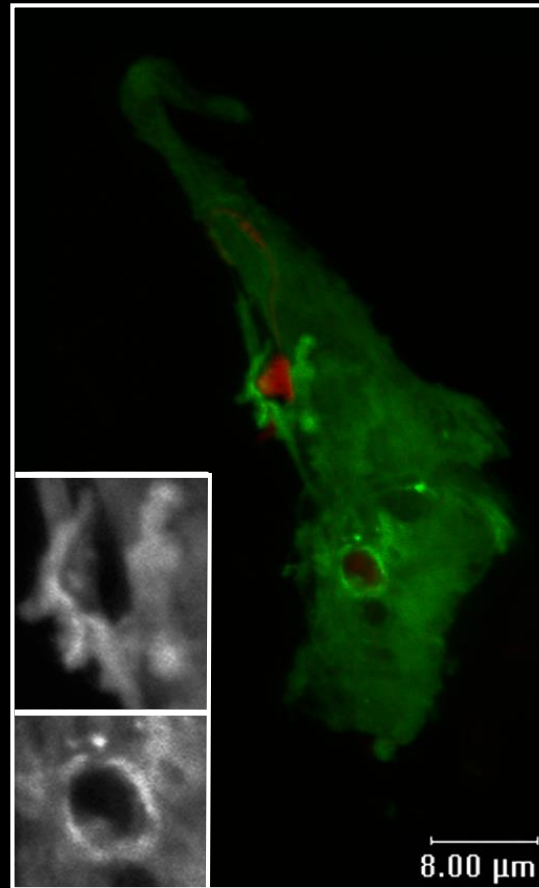
1. Katarzyna Kwiatkowska, Nencki Institutue of Exptl. Biology, Warsaw
2. Javier Pizzaro Cedra, Institut Pasteur Paris)
3. Hawkins P., Inositide Laboratory, The Babraham Institute, Cambridgeshire

Localization pattern of PIs on *Leishmaniophorous* phagosomes

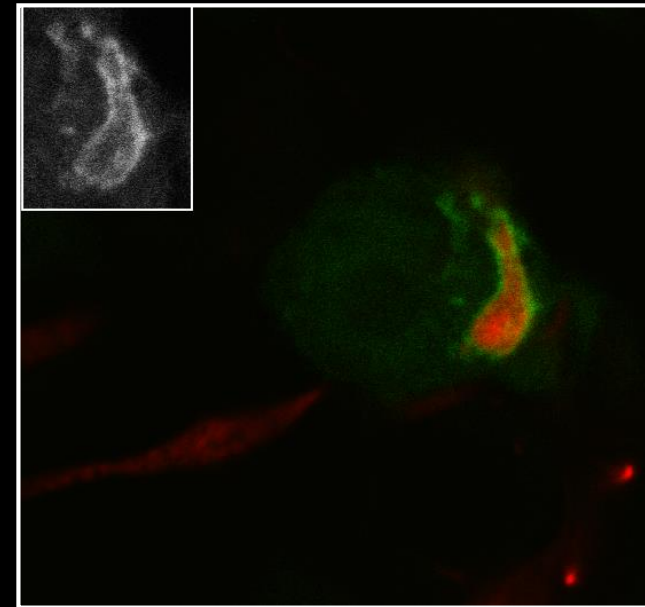
PLC δ 1 PH-GFP
PI(4,5)P₂



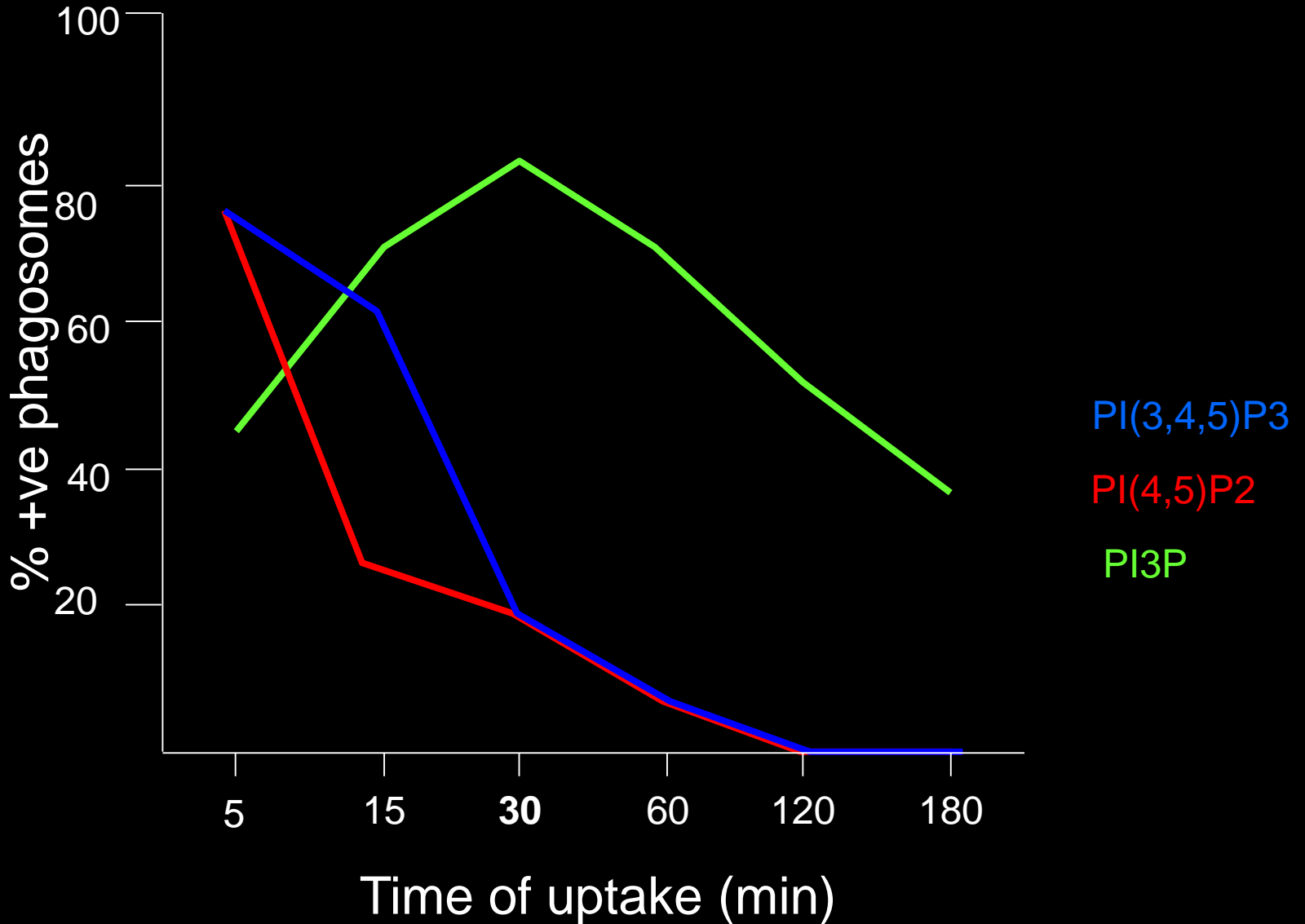
Btk PH-YFP
PI(3,4,5)P₃



p40^{phox}-PX-GFP
PI3P



Kinetics of PIs localization on *Leishmaniophorous* phagosomes



THANK YOU
FOR YOUR ATTENTION!!!