

Jacques Pouysségur - Selected publications

- Pouysségur**, J., and Pastan, I. (1976). *Proc.Natl.Acad.Sci. USA* **73**, 544-548. Mutants of Balb/c 3T3 fibroblasts defective in adhesiveness to substratum: evidence for alteration in cell surface proteins.
- Pouysségur**, J., Willingham, M., and Pastan, I. (1977). *Proc.Natl.Acad.Sci. USA* **74**, 243-247. Role of cell surface carbohydrate and proteins in cell behavior: studies on the biochemical reversion of an N-acetyl-glucosamine deficient fibroblasts mutant.
- Pouysségur**, J., Shiu, R., and Pastan, I. (1977). *Cell* **11**, 941-947. Induction of two transformation-sensitive membrane polypeptides in normal fibroblasts by a block in glycoprotein synthesis or glucose deprivation.
- Pouysségur**, J., and Yamada, K. (1978). *Cell* **13**, 139-150. Isolation and immunological characterization of a glucose-regulated fibroblasts cell surface glycosylation precursor.
- Anderson, W., Jaworski, C., Gallo, M., Pastan, I., and **Pouysségur**, J. (1978). *Nature* **275**, 223-224. Adenylate cyclase in fibroblast mutant defective in glycolipid and glycoprotein synthesis.
- Pouysségur**, J., Jacques, Y., and Lazdunski, M. (1980). *Nature* **28**, 162-164. Identification of tetrodotoxin-sensitive Na^+ channel in a variety of fibroblasts lines.
- Pouysségur**, J., Franchi, A., Salomon, J.C., and Silvestre, P. (1980). *Proc.Natl.Acad.Sci. USA* **77**, 2698-2701. Isolation of a Chinese hamster fibroblasts mutant defective in hexose transport and aerobic glycolysis: its use to dissect the malignant phenotype.
- Pouysségur**, J., Franchi, A., and Silvestre, P. (1980). *Nature* **287**, 445-447. Relationship between increased aerobic glycolysis and DNA synthesis initiation studied using glycolytic mutant fibroblasts.
- Pouysségur**, J., Chambard, J.C., Franchi, A., Paris, S., and Van Obberghen-Schilling, E. (1982) *Proc.Natl.Acad.Sci. USA* **79**, 3935-3939. Growth factor activation of an amiloride sensitive Na^+/H^+ exchange system in quiescent fibroblasts: coupling to ribosomal protein S6 phosphorylation.
- Pouysségur**, J., Sardet, C., Franchi, A., L'Allemain, G., and Paris, S. (1984). *Proc.Natl.Acad.Sci. USA* **81**, 4833-37 A specific mutation abolishing Na^+/H^+ antiport activity in hamster fibroblasts precludes growth at neutral and acidic pH.
- Pouysségur** J. (1985). *Trends in Biochem.Sci.* **10**, 453-455. The growth factor activatable Na^+/H^+ exchange system. A genetic approach.
- Van Obberghen-Schilling, E., Chambard, J-C, Paris, S., L'Allemain, G. and **Pouysségur** J. (1985). *EMBO J.* **4**, 2927-2932. α -thrombin-induced early mitogenic signalling events and G_0 to S-phase transition of fibroblasts require continual external stimulation.
- Paris, S., and **Pouysségur**, J. (1986). *EMBO J.* **5**, 55-60. Pertussis toxin inhibits thrombin-induced activation of phosphoinositide hydrolysis and Na^+/H^+ exchange in hamster fibroblasts.
- Franchi, A., Perruca-Lostanen, D., and **Pouysségur**, J.(1986). *Proc.Natl.Acad.Sci USA*. **83**, 9388-9392. Functional expression of a transfected Na^+/H^+ antiporter human gene into antiporter-deficient mouse L cells.
- Chambard, J.C., Paris, S., and **Pouysségur**, J. (1987). *Nature*, **326**, 800-803. Two growth factor signalling pathways in fibroblasts distinguished by pertussis toxin.
- Seuwen, K., Lagarde, A. and **Pouysségur**, J. (1988). *EMBO J.* **7**, 161-168. Dereulation of hamster fibroblast proliferation by mutated ras oncogenes is not mediated by constitutive activation of Phospholipase C.
- Seuwen, K., Magnaldo, I. and **Pouysségur**, J. (1988). *Nature* **335**, 254-257. Serotonin stimulates DNA synthesis in fibroblasts via 5-HT-1B receptors coupled to Gi-protein.

- Sardet, C., Franchi, A., and **Pouysségur**, J. (1989). *Cell* **56**, 271-280. Molecular cloning, primary structure and expression of the human growth factor-activatable Na⁺/H⁺ antiporter.
- Sardet, C., Counillon, L., Franchi, A., and **Pouysségur**, J. (1990). *Science* **247**, 723-726. Growth factors induce phosphorylation of the Na⁺/H⁺ antiporter, a glycoprotein of 110 kDa.
- Wakabayashi, S., Fafournoux, P., Sardet, C., and **Pouysségur**, J. (1992). *Proc. Natl. Acad. Sci. USA* **89**, 2424-2428 The Na⁺/H⁺ antiporter cytoplasmic domain mediates growth factor signals and controls 'H⁺ - sensing'.
- Counillon, L., Franchi, A. and **Pouysségur**, J. (1993) *Proc. Natl. Acad. Sci. USA* **90**, 4508-4512. A Point Mutation of the Na⁺/H⁺ Exchanger Gene (NHE1) and Amplification of the Mutated Allele Confer Amiloride-Resistance upon Chronic Acidosis.
- Pagès, G., Lenormand, P., L'Allemand, G., Chambard, J-C., Meloche, S. and **Pouysségur**, J. (1993) *Proc. Natl. Acad. Sci. USA* **90**, 8319-8323. The Mitogen-Activated Protein kinases p42 and p44 MAPK are required for fibroblast Cell Proliferation.
- Pagès, G., Brunet, A., L'Allemand, G., and **Pouysségur**, J. (1994) *EMBO J.* **13**, 3003-3010. Constitutive mutant and putative regulatory serine phosphorylation site of mammalian MAP kinase kinase (MEK1).
- Brunet, A. and J. **Pouysségur** (1996) *Science* **272**, 1652-1655 Identification of MAP kinase domains by re-directing stress signals into growth factor responses.
- Brunet, A., Roux, D., Lenormand, P., Dowd, S., Keyse, S. and J. **Pouysségur** (1999) *EMBO J.* **18**, 664-674. Nuclear translocation of p42/p44 mitogen-activated protein kinase is required for growth factor-induced gene expression and cell cycle entry.
- Pagès, G., S. Guérin, D. Grall, F. Bonino, A. Smith, F. Anjuere, P. Auberger and J. **Pouysségur** (1999) *Science* **286**, 1374-1377. Defective thymocyte maturation in p44 MAP kinase (Erk1) knock out mice.
- Brondello, J.M., **Pouysségur**, J. and F.R. McKenzie (1999) *Science* **286**, 2514-2517. Regulation of MKP-1 degradation by p42/p44MAPK-dependent phosphorylation.
- Pouysségur**, J. (2000) *Science* **290**, 1515-1518. An Arresting Start for MAPK.
- Berra, E., Roux, D., Richard, D.E. and J. **Pouysségur** (2001) *EMBO Rep.* **2**, 615-20. Hypoxia-inducible factor-1α (HIF-1α) escapes O₂-driven proteasomal degradation irrespective of its subcellular localization: nucleus or cytoplasm.
- Berra, E., Benizri, E., Ginouves, A., Volmat, V., Roux, D. and J. **Pouysségur** (2003) *EMBO J.* **22**, 4082-4090. HIF prolyl-hydroxylase 2 is the key oxygen sensor setting low steady-state levels of HIF-1α in normoxia.
- Tournaire, R., Simon, M.P., Le Noble F., Eichmann, A., England, P. and J. **Pouysségur** (2004) *EMBO Rep.* **5**: 26. 2-7. A short synthetic peptide inhibits signal transduction migration and angiogenesis mediated by Tie2 receptor.
- Berra, E., Ginouvès, A. and **Pouysségur** J (2006) *EMBO Rep* **7**: 41-5. The Hypoxia-Inducible-Factor hydroxylases bring fresh air into Hypoxia Signaling.
- Pouysségur**, J. Dayan, F. and Mazure, N. (2006) *Nature* **441**, 437-443. Hypoxia signaling in Cancer and approaches to enforce Tumour Regression.
- Brahimi-Horn, C, Chiche J, **Pouyssegur** J. *Curr. Op. Cell Biol.* (2007) **19**, 223-9. Hypoxia Signalling Controls Metabolic Demand.
- Ginouvès A, Ilc K, Macías N, **Pouysségur** J, Berra E. *Proc Natl Acad Sci USA*. (2008) **105**, 4745-50. PHDs overactivation during chronic hypoxia "desensitizes" HIFalpha and protects cells from necrosis.
- Kroemer, G. and **Pouysségur**, J (2008) *Cancer Cell* **13**, 472-82. Tumor cell metabolism; cancer's Achilles heel.
- Chiche J, Ilc K, Laferrière J, Trottier E, Dayan F, Mazure NM, Brahimi-Horn

MC, Pouysségur J. *Cancer Res.* (2009) **69**, 358-368. Hypoxia-inducible carbonic anhydrase IX and XII promote tumor cell growth by counteracting acidosis through the regulation of the intracellular pH.

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Hypoxia-induced autophagy: cell death or cell survival?