Sara A Courtneidge, PhD, DSc (hc)
Professor
Oregon Health and Science University

Place of birth:	Shoreham-by-Sea, West Sussex, UK
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EDUCATION

University of Leeds, UK
BSc (Hons) IIi Biochemistry 1975

National Institute for Medical Research, Mill Hill, London, UK
PhD "The recognition of influenza virus-infected cells by cytotoxic T-lymphocytes" 1978 (Advisors: Drs MJ Crumpton and JJ Skehel)

PROFESSIONAL EXPERIENCE

1978 - 1981: Department of Microbiology and Immunology, University of California School of Medicine, San Francisco, California, USA
Postdoctoral fellow (Advisor: Prof JM Bishop)

1982 - 1985: National Institute for Medical Research, Mill Hill, London, UK
Member of Scientific Staff

1985 – 1995: Differentiation Programme, European Molecular Biology Laboratory, Heidelberg, Germany
1985-1991 Group Leader
1991-1994 Senior Scientist (with tenure)
1994-1995 Visiting Senior Scientist

1994 – 2000: SUGEN Inc, South San Francisco, California, USA
1994-1996 Vice President, Research
1997-1999 Senior Vice President, Research
1999-2000 Chief Scientist and Senior Vice President, Research

2001 - 2005: Van Andel Research Institute, Grand Rapids, Michigan, USA
2001-2002 Deputy Director and Senior Scientific Investigator
2003-2005 Distinguished Scientific Investigator

2002 – 2005: Michigan State University, Michigan, USA
Adjunct Professor, Dept of Microbiology and Molecular Genetics

2005 – 2014: Sanford|Burnham Medical Research Institute, La Jolla, California, USA
2005-2014 Professor
2005-2014 Director, Tumor Microenvironment and Metastasis Program
2008-2014 Director of Academic Affairs

2008 - 2014: University of California, San Diego
Adjunct Professor, Department of Pharmacology

2014 - : Sanford|Burnham Medical Research Institute
Adjunct Professor, Tumor Microenvironment and Metastasis Program

2014 - : Oregon Health and Science University
Professor, Department of Cell, Developmental & Cancer Biology and Department of Biomedical Engineering
Member, Center for Spatial Systems Biomedicine
Associate Director for Translational Sciences, Knight Cancer Institute (until 2018)

HONORS AND AWARDS

Elected to membership of the European Molecular Biology Organization (1990)
The Jubilee Lecture and Harden Medal of the British Biochemical Society (2001)
The Feodor Lynen Lecture and Lynen Medal, Nature Biotechnology Winter Symposium (2005)
Doctor of Science (honoris causa), The University of Leeds, UK (2006)
AACR-WICR Charlotte Friend Memorial Lectureship (2015)
Elected to fellowship of the American Association for the Advancement of Science (2020)
The 18th Rosalind E. Franklin Award for Women in Science, National Cancer Institute (2020)

Keynote Address, Tyrosine Phosphorylation Conference, Cold Spring Harbor (1997)
The Adam Neville Lecture, School of Life Sciences, University of Dundee (1999)
The Underberg Lecture, University of Rochester Cancer Center Symposium (2004)
Keynote Lecture, Signal Transduction 2004, Luxembourg (2004)
Keynote Speaker, Abramson Cancer Center Symposium, University of Pennsylvania (2005)
Plenary Session Presenter, American Association for Cancer Research Annual Meeting (2005)
Plenary Lecture, Signaling 2011, British Biochemical Society (2011)

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Association for the Advancement of Science
American Association for Cancer Research
American Society for Biochemistry and Molecular Biology
American Society of Cell Biology
European Molecular Biology Organization

ADVISORY AND REVIEW BOARD PARTICIPATION

National Institutes of Health
- Ad Hoc reviewer for NIH Special Emphasis Panels, study sections, intramural reviews (1996-)
- National Cancer Institute Breast Cancer Progress Review Group (1998)
- Translational Research Working Group, National Cancer Institute (2005-2007)
- Basic Mechanisms of Cancer Therapeutics Study Section (2007-2011; Chair 2009-2011)
- Board of Scientific Counselors, National Cancer Institute (2012-2018; Chair 2015-2018)

American Association for Cancer Research
- Strategic Planning Meeting, Think Tanks and various Prize Selection Committees (2002-)
- Board of Directors (2005-2008)
- Nominating Committee (2009-2010)
- Finance and Audit Committee (2010-2016)

Scientific Review Board, Starr Cancer Consortium (2007-)
Scientific Advisory Board, The Forbeck Foundation (2009-)
Scientific Advisory Board, BIOSS, University of Freiburg, Germany (2009-)
Scientific Advisory Board, Drug Discovery Program, Ontario Institute for Cancer Research (2010-2016)
Scientific Advisory Board, Los Angeles Biomedical Research Institute (2012-)
Scientific Advisory Board, CNIO - Spanish National Cancer Research Center (2012-)
Szent-Györgyi Prize for Progress in Cancer Research Selection Committee (2014, 2016)

Past not-for-profit advisory and review activities include: External Advisory Board, Children's Tumor Foundation (1998- 2013), Oncology Research Site Visit, Karolinska Institute, Sweden (2000), Helmholtz Association Cancer Research Review, Germany (2002, 2012), GM Mott Prize Selection Committee, General Motors Cancer Research Foundation (2002-2003), Board of Directors, Foundation for Advanced Cancer Studies (2000-2014), Scientific Advisory Board, Vanderbilt Institute of Chemical Biology (2003-2007), International Advisory Committee on Research, Alberta Cancer Research Institute (2005-2010), Scientific Advisory Board, Abramson Family Cancer Research Institute (2006-2009), Scientific Review Board, Howard Hughes Medical Institute (2008-2011), Scientific Advisory Committee, Tobacco-related Disease Research Program, CA (2008-2012)

Scientific Advisory Board, Arvinas (2019-)

Past for profit advisory activities include: Kinase Advisory Board, Vertex Inc (2002-2005), Scientific Advisory Board, Ceptyr Inc (2002-2005), Scientific Advisory Board, TargeGen Inc (2004-2009), Scientific Advisory Board, Crown Biosciences (2008-2017)

EDITORIAL BOARD MEMBERSHIP

Cancer Cell (2002-)
Cancer Discovery (2011-)
Past editorial board duties include: Journal of Cell Biology (1988-1994), Oncogene Research (1988-1991), Cell Growth & Differentiation (1991-1999), Trends in Cell Biology (1991-1996), EMBO Journal (1995-1997), Molecular and Cellular Biology (1995-2000), Anti-Cancer Drug Design (1996-2001), Molecular Cancer Research (2005-2007), CR – an AACR sponsored consumer magazine (2005-2010), Pharmacology and Therapeutics (2010-2013), Cancer Today (2011- 2015), Genes and Development (1992-2016)

CONFERENCE ORGANIZATION

Co-organizer, Oncogene meeting (1995)
Co-organizer, Cold Spring Harbor Conference on Protein Phosphorylation, Cell Signaling and Disease (1999, 2001, 2003, 2005, 2007, 2009)
Co-organizer, Keystone Symposium on Cancer Intervention (2001)
Program Chair, American Association for Cancer Research Annual Meeting (2003)
Co-organizer, Keystone Symposium on Molecular Targets for Cancer Therapy (2005)
Co-organizer, AACR special conference, Drugging the Cancer Genome (2006)
Co-organizer, Salk Institute Conference on Posttranslational Regulation of Cell Signaling (formerly Protein Phosphorylation and Cell Signaling) (2006, 2008, 2010, 2012)
Co-organizer, Keystone Symposium on Molecular Targets in Cancer (2007)
Program Chair, AACR-NCI-EORTC Molecular Targets Conference (2007)
Program Executive Committee Member, AACR-NCI-EORTC Molecular Targets Conference (2009)
Program Committee Member, AACR Annual Meeting (2010)
Program Chair, Molecular Therapeutics of Cancer Conference (2011)
Program Committee Member, AACR-NCI-EORTC Molecular Targets Conference (2014)
Program co-Chair, OHSU-CRUK Early Detection of Cancer Conference (2016, 2017, 2018)

RESEARCH INTERESTS

My laboratory studies the tyrosine kinase Src, and we have contributed to understanding Src transformation, regulation, substrate selection and function. Currently our research focuses on invasion

and metastasis, with emphasis on the role of membrane structures called invadopodia. While much of my career has been spent in not-for-profit research institutions, I also spent six years in the biotech SUGEN, where we specialized in the characterization and validation of kinases involved in driving the cancer phenotype, and generating small molecule therapeutics targeting them. I remain interested in translational research, and currently seek to define novel therapeutic points of intervention.

PUBLICATIONS

In peer-reviewed journals:

Zweerink HJ, Courtneidge SA, Skehel JJ, Crumpton MJ & Askonas BA (1977) Cytotoxic T cells kill influenza virus infected cells but do not distinguish between serologically distinct type A viruses. Nature 267, 354-356.

Zweerink HJ, Askonas BA, Millican D, Courtneidge SA & Skehel JJ (1977) Cytotoxic T cells to type A influenza virus; viral hemagglutinin induces A-strain specificity while infected cells confer cross-reactive cytotoxicity. Eur J Immunol 7, 630-635.

*Courtneidge SA, *Levinson AD & Bishop JM (1980) The protein encoded by the transforming gene of avian sarcoma virus (pp60^{src}) and a homologous protein in normal cells (pp60$^{proto\text{-}src}$) are associated with the plasma membrane. Proc Nat Acad Sci USA 77, 3783-3787.
**co-first authors*

Payne GS, Courtneidge SA, Crittenden LB, Fadly AM, Bishop JM & Varmus HE (1981) Analysis of avian leukosis virus DNA and RNA in bursal tumors: viral gene expression is not required for maintenance of the tumor state. Cell 23, 311-322.

*Levinson AD, *Courtneidge SA & Bishop JM (1981) Structural and functional domains of the Rous sarcoma virus transforming protein (pp60^{src}). Proc Nat Acad Sci USA 78, 1624-1628.
**co-first authors*

Courtneidge SA & Bishop JM (1982) Transit of pp60$^{v\text{-}src}$ to the plasma membrane. Proc Nat Acad Sci USA 79, 7117-7121.

Courtneidge SA, Ralston R, Alitalo K & Bishop JM (1983) Subcellular location of an abundant substrate (p36) for tyrosine-specific protein kinases. Mol Cell Biol 3, 340-350.

Courtneidge SA & Smith AE (1983) Polyoma virus transforming protein associates with the product of the c-*src* cellular gene. Nature 303, 435-439.

Chen L-C, Courtneidge SA & Bishop JM (1983) Immunological phenotype of lymphomas induced by avian leukosis viruses. Mol Cell Biol 3, 1077-1085.

Courtneidge SA & Smith AE (1984) The complex of polyoma virus middle T antigen and pp60$^{c\text{-}src}$. EMBO J 3, 585-591.

Magee AI & Courtneidge SA (1985) Two classes of fatty acid acylated proteins exist in eukaryotic cells. EMBO J 4, 1137-1144.

Courtneidge SA (1985) Activation of the pp60$^{c\text{-}src}$ kinase by middle T antigen or by dephosphorylation. EMBO J 4, 1471-1477.

Wilson JB, Hayday A, Courtneidge SA & Fried M (1986) A frameshift at a mutational hotspot in the polyoma virus early region generates two new proteins that define t-antigen functional domains. Cell 44, 477-487.

Courtneidge SA & Heber A (1987) An 81kD protein complexed with middle T antigen and pp60$^{c\text{-}src}$: a possible phosphatidylinositol kinase. Cell 50, 1031-1037.

Williams RL, Courtneidge SA & Wagner EF (1988) Embryonic lethalities and endothelial tumors in chimeric mice expressing polyoma virus middle T oncogene. Cell 52, 121-131.

Kypta RM, Hemming A & Courtneidge SA (1988) Identification and characterization of p59^{fyn} (a *src*-like protein tyrosine kinase) in normal and polyoma virus transformed cells. EMBO J 7, 3837-3844.

Courtneidge SA, Read M & Fried M (1989) Cytoplasmic interaction between pp60$^{c\text{-}src}$ and a truncated polyoma virus middle T antigen. Oncogene Research 4, 75-80.

Aguzzi A, Wagner EF, Williams RL & Courtneidge SA (1990) Sympathetic hyperplasia and neuroblastomas in transgenic mice expressing polyoma middle T antigen. New Biologist 2, 533-543.

Kypta RM, Goldberg Y, Ulug ET & Courtneidge SA (1990) Association between the PDGF receptor and members of the *src* family of tyrosine kinases. Cell 62, 481-492.

Ulug ET, Hawkins PT, Hanley MR & Courtneidge SA (1990) Phosphatidylinositol metabolism in cells transformed with polyoma virus middle T antigen. J Virol 64, 3895-3904.

Rassoulzadegan M, Courtneidge SA, Loubiére R, El Baze P & Cuzin F (1990) A variety of tumours induced by the middle T antigen of polyoma virus in a transgenic mouse family. Oncogene 5, 1507-1510.

Otsu M, Hiles I, Goot I, Fry MJ, Ruiz-Larrea F, Panayotou G, Thompson A, Dhand R, Hsuan J, Totty N, Smith AD, Morgan SJ, Courtneidge SA, Parker PJ & Waterfield MD (1991) Characterization of two related 85 kd proteins containing SH2 and SH3 domains that bind to receptor tyrosine kinases and polyoma virus middle T antigen/pp60$^{c\text{-}src}$ complexes, and associate with phosphatidylinositol 3-kinase. Cell 65, 91-104.

Courtneidge SA**,** Goutebroze L, Cartwright A, Heber A, Scherneck S & Feuteun J (1991) Identification and characterization of the hamster polyomavirus middle T antigen. J Virol 65, 3301-3308.

Courtneidge SA**,** Kypta RM, Cooper JA & Kazlauskas A (1991) PDGF receptor sequences important for binding of *src* family tyrosine kinases. Cell Growth & Differentiation 2, 483-486.

Ulug ET, Cartwright AJ & Courtneidge SA (1992) Characterization of the interaction of polyomavirus middle T antigen with type 2A protein phosphatase. J Virol 66, 1458-1467.

Hiles ID, Otsu M, Volinia S, Fry MJ, Gout I, Dhand R, Panayotou G, Ruiz-Larrea F, Thompson A, Totty NF, Hsuan JJ, Courtneidge SA, Parker PJ & Waterfield MD (1992) Phosphatidylinositol 3-kinase: structure and expression of the 110 kd catalytic subunit. Cell 70, 419-429.

Twamley GM, Kypta RM, Hall B & Courtneidge SA (1992) Association of Fyn with the activated PDGF receptor: requirements for binding and phosphorylation. Oncogene 7, 1893-1901.

Fry MJ, Panayotou G, Dhand R, Ruiz-Larrea F, Gout I, Nguyen O, Courtneidge SA & Waterfield MJ (1992) Purification and characterization of a phosphatidylinositol 3-kinase complex from bovine brain by using phosphopeptide affinity columns. Biochem J 288, 383-393.

Courtneidge SA, Dhand R, Pilat D, Twamley GT, Waterfield MD & Roussel MF (1993) Activation of Src family kinases by colony stimulating factor-1, and their association with its receptor. EMBO J 12, 943-950.

Mori S, Rönnstrand L, Yokote K, Engström A, Courtneidge SA, Claesson-Welsh L & Heldin C-H (1993) Identification of two juxtamembrane autophosphorylation sites in the PDGF ß-receptor. Involvement in the interaction with Src family tyrosine kinases. EMBO J 12, 2257-2264.

Noble MEM, Musacchio A, Saraste M, Courtneidge SA & Wierenga RK (1993) Crystal structure of the SH3 domain in human Fyn. Comparison of the three-dimensional structures of SH3 domains in tyrosine kinases and spectrin. EMBO J 12, 2617-2624.

Superti-Furga G, Fumagalli S, Koegl M, *Courtneidge SA & Draetta G (1993) Csk inhibition of c-Src activity requires both the SH2 and SH3 domains of Src. EMBO J 12, 2625-2634.
**corresponding author*

Twamley-Stein GM, Pepperkok R, Ansorge W & Courtneidge SA (1993) The Src family protein tyrosine kinases are required for platelet-derived growth factor-mediated signal transduction in NIH 3T3 cells. Proc Nat Acad Sci USA 90, 7696-7700.

Koegl M, Goldberg Y & Courtneidge SA (1993) Generation of a temperature-sensitive cSrc. Virol 196, 368-371.

Dhand R, Hiles I, Panayotou G, Roche S, Fry MJ, Gout I, Totty NF, Truong O, Yonezawa K, Kasuga M, Courtneidge SA & Waterfield MD (1994) PI 3-kinase is a dual specificity enzyme: autoregulation by an intrinsic protein-serine kinase activity. EMBO J 13, 522-533.

Kiefer F, Anhauser I, Soriano P, Aguzzi A, Courtneidge SA & Wagner EF (1994) Endothelial cell transformation by polyomavirus middle T antigen in mice lacking Src-related kinases. Current Biology 4, 100-109.

Borchert TV, Mathieu M, Zeelen JP, Courtneidge SA & Wierenga RK (1994) The crystal structure of human CskSH3: structural diversity near the RT-Src and n-Src loop. FEBS Letts 341, 79-85.

Roche S, Dhand R, Waterfield MD & Courtneidge SA (1994) The catalytic subunit of phosphatidylinositol 3-kinase is a substrate for the activated platelet-derived growth factor receptor, but not for middle T antigen:pp60$^{c\text{-}src}$ complexes. Biochem J 301, 703-711.

Fumagalli S, Totty NF, Hsuan J & Courtneidge SA (1994) A target for Src in mitosis. Nature 368, 871-874.

Koegl M, Kypta RM, Bergman M, Alitalo K & Courtneidge SA (1994) Rapid and efficient purification of SH2 domain-containing proteins: Fyn, Csk and phosphatidylinositol 3-kinase p85. Biochem J 302, 737-744.

Koegl M, Zlatkine P, Ley SC, Courtneidge SA & Magee AI (1994) Palmitoylation of multiple Src family kinases at a homologous N-terminal motif. Biochem J 303, 749-753.

Roche S, Koegl M & Courtneidge SA (1994) The phosphatidylinositol 3-kinase α is required for DNA synthesis induced by some, but not all growth factors. Proc Nat Acad Sci USA 91, 9185-9189.

Chen Y-H, Pouysségur J, Courtneidge SA & Obberghen-Schilling EV (1994) Activation of Src family kinase activity by the G protein-coupled thrombin receptor in growth-responsive fibroblasts. J Biol Chem 269, 27372-27377.

Roche S, Koegl M, Barone MV, Roussel MF & Courtneidge SA (1995) DNA synthesis induced by some, but not all, growth factors requires Src family protein tyrosine kinases. Mol Cell Biol 15, 1102-1109.

Brizuela L, Ulug ET, Jones MA & Courtneidge SA (1995) Induction of interleukin-2 transcription by the hamster polyomavirus middle T antigen: a role for Fyn in T cell signal transduction. Eur J Immunol 25, 385-393.

Erpel T, Superti-Furga G & Courtneidge SA (1995) Mutational analysis of the Src SH3 domain: the same residues of the ligand binding surface are important for intra-and inter-molecular interactions. EMBO J 14, 963-975.

Alonso G, Koegl M, Mazurenko N & Courtneidge SA (1995) Sequence requirements for binding of Src family kinases to activated growth factor receptors. J Biol Chem 270, 9840-9848.

Landgren E, Blume-Jensen P, Courtneidge SA & Claesson-Welsh L (1995) Fibroblast growth factor receptor-1 regulation of Src family kinases. Oncogene 18, 2027-2035.

Roche S, Fumagalli S & Courtneidge SA (1995) Requirement for Src family kinases in G2 for fibroblast cell division. Science 269, 1567-1569.

Barone MV & Courtneidge SA (1995) Myc but not Fos rescue of PDGF signalling block caused by kinase inactive Src. Nature 378, 509-512.

Koegl M, Courtneidge SA & Superti-Furga G (1995) Structural requirements for the efficient regulation of the Src protein tyrosine kinase by Csk. Oncogene 11, 2317-2329.

Superti-Furga G, Jönsson K & Courtneidge SA (1996) A functional screen in yeast for regulators and antagonizers of heterologous protein tyrosine kinases. Nature Biotechnology 14, 600-605.

Lock P, Fumagalli S, Polakis P, McCormick F & Courtneidge SA (1996) The human p62 cDNA encodes Sam68 and not the RasGAP-associated p62 protein. Cell 84, 23-24.

Erpel T, Alonso G & Courtneidge SA (1996) The Src SH3 domain is required for DNA synthesis induced by PDGF and EGF. J Biol Chem 271, 16807-16812.

Roche S, McGlade J, Jones M, Gish GP, Pawson T & Courtneidge SA (1996) Requirement of phospholipase Cγ the tyrosine phosphatase Syp, the adaptor proteins SHC and Nck for PDGF-induced DNA synthesis: evidence for the existence of Ras-dependent and Ras-independent pathways. EMBO J 15, 4940-4948.

Dikic I, Tokiwa G, Lev S, Courtneidge SA & Schlessinger J (1996) A role for Pyk2 and Src in linking G-protein-coupled receptors with MAP kinase activation. Nature 383, 547-550.

Weijland A, Neubauer G, Courtneidge SA, Mann M, Wierenga RK & Superti-Furga G (1996) The purification and characterization of the catalytic domain of Src expressed in Schizosaccharomyces pombe. Comparison of unphosphorylated and tyrosine phosphorylated species. Eur J Biochem 240, 756-764.

Empereur S, Djelloul S, Di Giola Y, Bruyneel E, Mareel M, Van Hengel J, Van Roy F, Comoglio P, Courtneidge SA, Paraskeva C, Chastre E & Gespach C (1997) Progression of familial adenomatous polyposis (FAP) colonic cells after transfer of the *src* or polyoma middle T oncogenes: cooperation between src and HGF/Met in invasion. Br J Cancer 75, 241-250.

Weijland A, Williams JC, Neubauer G, Courtneidge SA, Wierenga RK & Superti-Furga G (1997) Src regulated by C-terminal phosphorylation is monomeric. Proc Nat Acad Sci USA 94, 3590-3595.

Hansen K, Alonso G, Courtneidge SA, Ronnstrand L & Heldin CH (1997) PDGF-induced phosphorylation of Tyr28 in the N-terminus of Fyn affects Fyn activation. Biochem Biophys Res Commun 241, 355-362.

Williams JC, Weijland A, Gonfloni S, Thompson A, Courtneidge SA, Superti-Furga G, & Wierenga RK (1998) The 2.35A crystal structure of the inactivated form of chicken Src: A dynamic molecule with multiple regulatory interactions. J Mol Biol 274, 757-775.

Lock P, Abram CL, Gibson T & Courtneidge SA (1998) A new method for isolating tyrosine kinase substrates used to identify Fish, an SH3 and PX domain-containing protein, and Src substrate. EMBO J 17, 4346-4357.

Roche S, Alonso G, Kazlauskas A, Dixit VM, *Courtneidge SA & Pandey A (1998) Src-like adaptor protein (Slap) is a negative regulator of mitogenesis. Curr Biol 8, 975-978.
**corresponding author*

Roche S, Downward J, Raynal P, Courtneidge SA (1998) A function for phosphatidylinositol 3-Kinase β (p85α-p110β) in fibroblasts during mitogenesis: Requirement for insulin-and lysophosphatidic acid-mediated signal transduction. Mol Cell Biol 18, 7119-29.

Blake RA, Garcia-Paramio P, Parker PJ, Courtneidge SA (1999) Src promotes PKCδ degradation. Cell Growth & Differentiation 10, 231-241.

Broome MA, Galisteo ML Schlessinger J & Courtneidge SA (1999) The proto-oncogene c-Cbl is a negative regulator of DNA synthesis initiated by both receptor and cytoplasmic tyrosine kinases. Oncogene 18, 2908-2912.

Tominaga T, Sahai E, Chardin P, McCormick F, Courtneidge SA & Alberts AS (2000) Diaphanous-related formins bridge Rho GTPase and Src tyrosine kinase signaling. Molecular Cell 5, 13-25.

Broome MA & Courtneidge SA (2000) No requirement for Src family kinases for PDGF signaling in fibroblasts expressing SV40 large T antigen. Oncogene 19 2867-2869.

Blake RA, Broome MA, Liu X, Wu J, Gishizky M, Sun L & Courtneidge SA (2000) SU6656, a selective Src family kinase inhibitor, used to probe growth factor signaling. Mol Cell Biol 20, 9018-9027.

Bowman T, Broome MA, Sinibaldi D, Wharton W, Pledger WJ, Sedivy JM, Irby R, Yeatman T, Courtneidge SA & Jove R (2001) Stat3-mediated Myc expression is required for Src transformation and PDGF-mediated mitogenesis. Proc Nat Acad Sci USA 98, 7319-7324.

Scaife RM, Courtneidge SA & Langdon WY (2003) The multi-adaptor proto-oncoprotein Cbl is a key regulator of Rac and actin assembly. J Cell Sci 116, 463-73.

Voytyuk O, Lennartsson J, Mogi A, Caruana G, Courtneidge SA, Ashman LK & Ronnstrand L (2003) Src family kinases are involved in the differential signaling from two splice forms of c-Kit. J Biol Chem 278, 9159-9166.

Abram CL, Seals DF, Pass I, Salinsky D, Maurer L, Roth TM & Courtneidge SA (2003) The adaptor protein Fish associates with members of the ADAMs family and localizes to podosomes of Src-transformed cells. J Biol Chem 278, 16844-16851.

Seals DF, Azucena EF Jr, Pass I, Tesfay L, Gordon R, Woodrow M, Resau JH & Courtneidge SA (2005) The adaptor protein Tks5/Fish is required for podosome formation and function, and for the protease-driven invasion of cancer cells. Cancer Cell 7, 155-165.

Bromann PA, Korkaya H, Webb CP, Miller J, Calvin TL & Courtneidge SA (2005) Platelet-derived growth factor stimulates Src-dependent mRNA stabilization of specific early genes in fibroblasts. J Biol Chem 280, 10253-10263.

Gianni D, Bohl B, Courtneidge SA & Bokoch GM (2008) The involvement of the tyrosine kinase c-Src in the regulation of reactive oxygen species (ROS) generation mediated by NADPH oxidase-1 (Nox1). Mol Biol Cell 19, 2984-2994.

Blouw B, Seals DF, Pass I, Diaz B & Courtneidge SA (2008) A role for the podosome/invadopodia scaffold protein Tks5 in tumor growth in vivo. Eur J Cell Biol 87, 555-567.

Schilsky RL, Gordon G, Gilmer TM, Courtneidge SA, Matrisian LM, Grad O & Nelson WG (on behalf of the Translational Research Working Group) (2008) The Translational Research Working Group Developmental Pathway for Anti-Cancer Agents (Drugs or Biologics) Clin Canc Res 14, 5685-5691.

Buschman M, Bromann PA, Cejudo-Martin P, Wen F, Pass I & Courtneidge SA (2009) The novel adaptor protein Tks4 (SH3PXD2B) is required for functional podosome formation. Mol Biol Cell, 20, 1302-1311.

Stylli SS, I STT, Verhagen AM, Xu SS, Pass I, Courtneidge SA & Lock P (2009) Nck adaptor proteins link Src and Tks5 to invadopodia actin assembly and ECM proteolysis. J Cell Sci 122, 2727-2740.

Crimaldi L, Courtneidge SA & Gimona M (2009) Tks5 recruits AFAP-110, p190RhoGAP and cortactin for podosome formation. Exp Cell Res 315, 2581-2592.

Diaz B, Shani G, Pass I, Anderson D, Quintavalle M & Courtneidge SA (2009) Tks5-dependent, Nox-mediated generation of reactive oxygen species is necessary for invadopodia formation. Science Signaling 2, ra53.

Gianni D, Diaz B, Taulet N, Fowler B, *Courtneidge SA & *Bokoch GM. (2009) Novel p47phox-related organizers regulate localized NADPH oxidase 1 (Nox1) activity. Science Signaling 2, ra54.
**co-corresponding authors*

Elia L, Quintavalle M, Zhang J, Contu R, Cossu L, Latronico MVG, Peterson KL, Indolfi C, Catalucci D, Chen J, *Courtneidge SA & *Condorelli G (2009) The knockout of miR-143 and -145 alters smooth muscle cell maintenance and vascular homeostasis in mice: correlates with human disease. Cell Death & Diff 16, 1590-1598.
**co-corresponding authors*

Iqbal Z, Cejudo-Martin P, de Brouwer A, van der Zwaag B, Ruiz-Lozano P, Scimia MC, Lindsey JD, Weinreb R, Albrecht B, Megarbane A, Alanay Y, Ben-Neriah Z, Amenduni M, Artuso R, Veltman JA, van Beusekom E, Oudakker A, Millan J-L, Hennekam R, Hamel B, *Courtneidge SA & van Bokhoven H (2010) Disruption of the podosome adaptor protein Tks4 (SH3PXD2B) causes the skeletal dysplasia, eye and cardiac abnormalities of Frank-Ter Haar Syndrome. American Journal of Human Genetics 86, 254-261.
**corresponding author*

Quintavalle M, Elia L, *Condorelli G & *Courtneidge SA (2010) MicroRNA control of podosome formation in vascular smooth muscle cells in vivo and in vitro. J Cell Biol 189, 13-22.
**co-corresponding authors*

Murphy DA, Diaz B, Bromann PA, Tsai JH, Kawakami Y, Maurer J, Stewart RA, Izpisúa-Belmonte JC & Courtneidge SA (2011) A Src-Tks5 pathway is required for neural crest cell migration during embryonic development. PLOS One 6, e22499.

Quintavalle M, Elia L, Price JH, Heynen-Genel S & Courtneidge SA (2011) A cell-based, high content screening assay reveals activators and inhibitors of cancer cell invasion. Science Signaling 4, ra49.

Yoneyama T, Angata K, Bao X, Courtneidge S, Chanda SK & Fukuda M (2012) Fer kinase regulates cell migration through α-dystroglycan glycosylation. Mol Biol Cell 23, 771-780

Munson JM, Fried L, Rowson SA, Bonner MY, Karumbaiah L, Diaz B, Courtneidge SA, Knaus UG, Brat DJ, Arbiser JL & Bellamkonda RV (2012) Anti-invasive adjuvant therapy with imipramine blue enhances chemotherapeutic efficacy against glioma. Science Translational Medicine 4, ra36.

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Cejudo-Martin P, Yuen A, Vlahovich N, Lock P, *Courtneidge SA & *Diaz B (2014) Genetic disruption of the *Sh3pxd2a* gene reveals an essential role in mouse development and the existence of a novel isoform of Tks5. PLOS One 9, e107674.
**co-corresponding authors*

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