

## SOX-BASED SENSORS - CUSTOMER PUBLICATIONS (2007-present): 85 PUBLICATIONS

- 1) Kawamura, A., Baitsch, D., Telgmann, R., Feuerborn, R., Weissen-Plenz, G., Hagedorn, C., Saku, K., Brand-Herrmann, S. M., von Eckardstein, A., Assmann, G. and Nofer, J. R. (2007). "Apolipoprotein E interrupts interleukin-1beta signaling in vascular smooth muscle cells." *Arterioscler Thromb Vasc Biol* **27**: 1610-1617. <http://www.ncbi.nlm.nih.gov/pubmed/17510469> **PKA (Ser/Thr)**.
- 2) Liao, S. S., Jazag, A., Ito, K. and Whang, E. E. (2007). "Overexpression of HMGA1 promotes anoikis resistance and constitutive Akt activation in pancreatic adenocarcinoma cells." *Br J Cancer* **96**: 993-1000. <http://www.ncbi.nlm.nih.gov/pubmed/17342093> **AKT (Ser/Thr)**.
- 3) Papp, E., Tse, J. K., Ho, H., Wang, S., Shaw, D., Lee, S., Barnett, J., Swinney, D. C. and Bradshaw, J. M. (2007). "Steady state kinetics of spleen tyrosine kinase investigated by a real time fluorescence assay." *Biochemistry* **46**: 15103-15114. <http://www.ncbi.nlm.nih.gov/pubmed/18052078> **SYK (Tyr)**.
- 4) Kolb, P., Kipouros, C. B., Huang, D. and Caflisch, A. (2008). "Structure-based tailoring of compound libraries for high-throughput screening: discovery of novel EphB4 kinase inhibitors." *Proteins* **73**: 11-18. <http://www.ncbi.nlm.nih.gov/pubmed/18384152> **EphB4 (Tyr)**.
- 5) Reichling, L. J., Riddle, S. M., Mei, B., Bruinsma, R., Goossens, T. A., Huwiler, K. G., Maffitt, M., Newport, A. M., Qian, X. D., Ruttimann-Johnson, C. and Vogel, K. W. (2008). "Homogenous fluorescent assays for characterizing small-molecule activators of AMP-activated protein kinase (AMPK)." *Curr Chem Genomics* **1**: 34-42. <http://www.ncbi.nlm.nih.gov/pubmed/20161826> **AMPK (Ser/Thr)**.
- 6) Tsang, E., Giannetti, A. M., Shaw, D., Dinh, M., Tse, J. K., Gandhi, S., Ho, H., Wang, S., Papp, E. and Bradshaw, J. M. (2008). "Molecular mechanism of the Syk activation switch." *J Biol Chem* **283**: 32650-32659. <http://www.ncbi.nlm.nih.gov/pubmed/18818202> **SYK (Tyr)**.
- 7) Webb, A., Johnson, A., Fortunato, M., Platt, A., Crabbe, T., Christie, M. I., Watt, G. F., Ward, S. G. and Jopling, L. A. (2008). "Evidence for PI-3K-dependent migration of Th17-polarized cells in response to CCR2 and CCR6 agonists." *J Leukoc Biol* **84**: 1202-1212. <http://www.ncbi.nlm.nih.gov/pubmed/18586982> **AKT (Ser/Thr)**.
- 8) Anderson, K., Lai, Z., McDonald, O. B., Stuart, J. D., Nartey, E. N., Hardwicke, M. A., Newlander, K., Dhanak, D., Adams, J., Patrick, D., Copeland, R. A., Tummino, P. J. and Yang, J. (2009). "Biochemical characterization of GSK1070916, a potent and selective inhibitor of Aurora B and Aurora C kinases with an extremely long residence time1." *Biochem J* **420**: 259-265. <http://www.ncbi.nlm.nih.gov/pubmed/19284385> **Aurora B & C (Ser/Thr), Covalent Inhibitors**.
- 9) Lauchle, J. O., Kim, D., Le, D. T., Akagi, K., Crone, M., Krisman, K., Warner, K., Bonifas, J. M., Li, Q., Coakley, K. M., Diaz-Flores, E., Gorman, M., Przybranowski, S., Tran, M., Kogan, S. C., Roose, J. P., Copeland, N. G., Jenkins, N. A., Parada, L., Wolff, L., Sebolt-Leopold, J. and Shannon, K. (2009). "Response and resistance to MEK inhibition in leukaemias initiated by hyperactive Ras." *Nature* **461**: 411-414. <http://www.ncbi.nlm.nih.gov/pubmed/19727076> **MAPKAP2/MK2 (Ser/Thr)**.
- 10) Lee, J. H., Cosgrove, B. D., Lauffenburger, D. A. and Han, J. (2009). "Microfluidic concentration-enhanced cellular kinase activity assay." *J Am Chem Soc* **131**: 10340-10341. <http://www.ncbi.nlm.nih.gov/pubmed/19722608> **MAPKAP2/MK2 & PKA (Ser/Thr). Microfluidics**.
- 11) Li, M., Luraghi, P., Amour, A., Qian, X. D., Carter, P. S., Clark, C. J., Deakin, A., Denyer, J., Hobbs, C. I., Surby, M., Patel, V. K. and Schaefer, E. M. (2009). "Kinetic assay for characterization of spleen tyrosine

- kinase activity and inhibition with recombinant kinase and crude cell lysates." *Anal Biochem* **384**: 56-67. <http://www.ncbi.nlm.nih.gov/pubmed/18762159> **SYK (Tyr)**.
- 12) Miyawaki, T., Ofengeim, D., Noh, K. M., Latuszek-Barrantes, A., Hemmings, B. A., Follenzi, A. and Zukin, R. S. (2009). "The endogenous inhibitor of Akt, CTMP, is critical to ischemia-induced neuronal death." *Nat Neurosci* **12**: 618-626. <http://www.ncbi.nlm.nih.gov/pubmed/19349976> **AKT (Ser/Thr)**.
- 13) Szkudlarek, M., Bosio, R. M., Wu, Q. and Chin, K. V. (2009). "Inhibition of angiogenesis by extracellular protein kinase A." *Cancer Lett* **283**: 68-73. <http://www.ncbi.nlm.nih.gov/pubmed/19368997> **PKA (Ser/Thr)**.
- 14) Timofeevski, S. L., McTigue, M. A., Ryan, K., Cui, J., Zou, H. Y., Zhu, J. X., Chau, F., Alton, G., Karlicek, S., Christensen, J. G. and Murray, B. W. (2009). "Enzymatic characterization of c-Met receptor tyrosine kinase oncogenic mutants and kinetic studies with aminopyridine and triazolopyrazine inhibitors." *Biochemistry* **48**: 5339-5349. <http://www.ncbi.nlm.nih.gov/pubmed/19459657> **cMET (HGFR; Tyr)**.
- 15) Ward, B., Seal, B. L., Brophy, C. M. and Panitch, A. (2009). "Design of a bioactive cell-penetrating peptide: when a transduction domain does more than transduce." *J Pept Sci* **15**: 668-674. <http://www.ncbi.nlm.nih.gov/pubmed/19691016> **MAPKAPK2/MK2 (Ser/Thr)**.
- 16) Wheeler, D. L., Iida, M., Kruser, T. J., Nechrebecki, M. M., Dunn, E. F., Armstrong, E. A., Huang, S. and Harari, P. M. (2009). "Epidermal growth factor receptor cooperates with Src family kinases in acquired resistance to cetuximab." *Cancer Biol Ther* **8**: 696-703. <http://www.ncbi.nlm.nih.gov/pubmed/19276677> **Src-Family Kinases (Tyr), IP-kinase assays**.
- 17) Yeager, L. A., Chopra, A. K. and Peterson, J. W. (2009). "Bacillus anthracis edema toxin suppresses human macrophage phagocytosis and cytoskeletal remodeling via the protein kinase A and exchange protein activated by cyclic AMP pathways." *Infect Immun* **77**: 2530-2543. <http://www.ncbi.nlm.nih.gov/pubmed/19307216> **PKA (Ser/Thr)**.
- 18) Zou, W., Reeve, J. L., Zhao, H., Ross, F. P. and Teitelbaum, S. L. (2009). "Syk tyrosine 317 negatively regulates osteoclast function via the ubiquitin-protein isopeptide ligase activity of Cbl." *J Biol Chem* **284**: 18833-18839. <http://www.ncbi.nlm.nih.gov/pubmed/19419964> **SYK (Tyr)**.
- 19) Devkota, A. K., Kaoud, T. S., Warthaka, M. and Dalby, K. N. (2010). "Fluorescent peptide assays for protein kinases." *Curr Protoc Mol Biol* **Chapter 18**: Unit 18 17. <http://www.ncbi.nlm.nih.gov/pubmed/20583097> **REVIEW**.
- 20) Kluter, S., Simard, J. R., Rode, H. B., Grutter, C., Pawar, V., Raaijmakers, H. C., Barf, T. A., Rabiller, M., van Otterlo, W. A. and Rauh, D. (2010). "Characterization of irreversible kinase inhibitors by directly detecting covalent bond formation: a tool for dissecting kinase drug resistance." *Chembiochem* **11**: 2557-2566. <http://www.ncbi.nlm.nih.gov/pubmed/21080395> **Src (Tyr), Covalent Inhibitors**.
- 21) Kroczek, C., Lang, C., Brachs, S., Grohmann, M., Dutting, S., Schweizer, A., Nitschke, L., Feller, S. M., Jack, H. M. and Mielenz, D. (2010). "Swiprosin-1/EFhd2 controls B cell receptor signaling through the assembly of the B cell receptor, Syk, and phospholipase C gamma2 in membrane rafts." *J Immunol* **184**: 3665-3676. <http://www.ncbi.nlm.nih.gov/pubmed/20194721> **SYK (Ser/Thr)**.
- 22) Pearce, L. R., Alton, G. R., Richter, D. T., Kath, J. C., Lingardo, L., Chapman, J., Hwang, C. and Alessi, D. R. (2010). "Characterization of PF-4708671, a novel and highly specific inhibitor of p70 ribosomal S6 kinase (S6K1)." *Biochem J* **431**: 245-255. <http://www.ncbi.nlm.nih.gov/pubmed/20704563> **S6K1 (Ser/Thr)**.

- 23) Tee, J. B., Choi, Y., Shah, M. M., Dnyanmote, A., Sweeney, D. E., Gallegos, T. F., Johkura, K., Ito, C., Bush, K. T. and Nigam, S. K. (2010). "Protein kinase A regulates GDNF/RET-dependent but not GDNF/Ret-independent ureteric bud outgrowth from the Wolffian duct." *Dev Biol* **347**: 337-347. <http://www.ncbi.nlm.nih.gov/pubmed/20816800> **PKA (Ser/Thr)**.
- 24) Xie, D., Gore, C., Liu, J., Pong, R. C., Mason, R., Hao, G., Long, M., Kabbani, W., Yu, L., Zhang, H., Chen, H., Sun, X., Boothman, D. A., Min, W. and Hsieh, J. T. (2010). "Role of DAB2IP in modulating epithelial-to-mesenchymal transition and prostate cancer metastasis." *Proc Natl Acad Sci U S A* **107**: 2485-2490. <http://www.ncbi.nlm.nih.gov/pubmed/20080667> **GSK-3b (Ser/Thr)**.
- 25) Chen, Z., Forman, L. W., Miller, K. A., English, B., Takashima, A., Bohacek, R. A., Williams, R. M. and Faller, D. V. (2011). "Protein kinase Cdelta inactivation inhibits cellular proliferation and decreases survival in human neuroendocrine tumors." *Endocr Relat Cancer* **18**: 759-771. <http://www.ncbi.nlm.nih.gov/pubmed/21990324> **PKC-δ (Ser/Thr)**.
- 26) Desrichard, A., Bidet, Y., Uhrhammer, N. and Bignon, Y. J. (2011). "CHEK2 contribution to hereditary breast cancer in non-BRCA families." *Breast Cancer Res* **13**: R119. <http://www.ncbi.nlm.nih.gov/pubmed/22114986> **CHEK2 (Ser/Thr)**.
- 27) Hofler, A., Nichols, T., Grant, S., Lingardo, L., Esposito, E. A., Gridley, S., Murphy, S. T., Kath, J. C., Cronin, C. N., Kraus, M., Alton, G., Xie, Z., Sutton, S., Gehring, M. and Ermolieff, J. (2011). "Study of the PDK1/AKT signaling pathway using selective PDK1 inhibitors, HCS, and enhanced biochemical assays." *Anal Biochem* **414**: 179-186. <http://www.ncbi.nlm.nih.gov/pubmed/21402045> **PDK1, AKT1 & 2. (Ser/Thr)**.
- 28) Kwezi, L., Ruzvidzo, O., Wheeler, J. I., Govender, K., Iacuone, S., Thompson, P. E., Gehring, C. and Irving, H. R. (2011). "The phytylsulfokine (PSK) receptor is capable of guanylate cyclase activity and enabling cyclic GMP-dependent signaling in plants." *J Biol Chem* **286**: 22580-22588. <http://www.ncbi.nlm.nih.gov/pubmed/21504901> **PSKR1 (Ser/Thr)**.
- 29) Oduor, R. O., Ojo, K. K., Williams, G. P., Bertelli, F., Mills, J., Maes, L., Pryde, D. C., Parkinson, T., Van Voorhis, W. C. and Holler, T. P. (2011). "Trypanosoma brucei glycogen synthase kinase-3, a target for anti-trypanosomal drug development: a public-private partnership to identify novel leads." *PLoS Negl Trop Dis* **5**: e1017. <http://www.ncbi.nlm.nih.gov/pubmed/21483717> **GSK-3 (HS & Tbru, Ser/Thr)**.
- 30) Tu, Q., Zhang, J., Dong, L. Q., Saunders, E., Luo, E., Tang, J. and Chen, J. (2011). "Adiponectin inhibits osteoclastogenesis and bone resorption via APPL1-mediated suppression of Akt1." *J Biol Chem* **286**: 12542-12553. <http://www.ncbi.nlm.nih.gov/pubmed/21300805> **AKT (Ser/Thr)**.
- 31) Yadav, P. N., Abbas, A. I., Farrell, M. S., Setola, V., Sciaky, N., Huang, X. P., Kroeze, W. K., Crawford, L. K., Piel, D. A., Keiser, M. J., Irwin, J. J., Shoichet, B. K., Deneris, E. S., Gingrich, J., Beck, S. G. and Roth, B. L. (2011). "The presynaptic component of the serotonergic system is required for clozapine's efficacy." *Neuropsychopharmacology* **36**: 638-651. <http://www.ncbi.nlm.nih.gov/pubmed/21048700> **CHEK2 (Ser/Thr)**.
- 32) Yang, J., Campobasso, N., Biju, M. P., Fisher, K., Pan, X. Q., Cottom, J., Galbraith, S., Ho, T., Zhang, H., Hong, X., Ward, P., Hofmann, G., Siegfried, B., Zappacosta, F., Washio, Y., Cao, P., Qu, J., Bertrand, S., Wang, D. Y., Head, M. S., Li, H., Moores, S., Lai, Z., Johanson, K., Burton, G., Erickson-Miller, C., Simpson, G., Tummino, P., Copeland, R. A. and Oliff, A. (2011). "Discovery and characterization of a cell-permeable, small-molecule c-Abl kinase activator that binds to the myristoyl binding site." *Chem Biol* **18**: 177-186. <http://www.ncbi.nlm.nih.gov/pubmed/21338916> **ABL (Tyr)**.

- 33) Chen, M., Maloney, J. A., Kallop, D. Y., Atwal, J. K., Tam, S. J., Baer, K., Kissel, H., Kaminker, J. S., Lewcock, J. W., Weimer, R. M. and Watts, R. J. (2012). "Spatially coordinated kinase signaling regulates local axon degeneration." *J Neurosci* **32**: 13439-13453. <http://www.ncbi.nlm.nih.gov/pubmed/23015435> **GSK-3 (Ser/Thr)**.
- 34) Durgadoss, L., Nidadavolu, P., Valli, R. K., Saeed, U., Mishra, M., Seth, P. and Ravindranath, V. (2012). "Redox modification of Akt mediated by the dopaminergic neurotoxin MPTP, in mouse midbrain, leads to down-regulation of pAkt." *FASEB J* **26**: 1473-1483. <http://www.ncbi.nlm.nih.gov/pubmed/22198382> **AKT (Ser/Thr)**.
- 35) Grutter, C., Simard, J. R., Mayer-Wrangowski, S. C., Schreier, P. H., Perez-Martin, J., Richters, A., Getlik, M., Gutbrod, O., Braun, C. A., Beck, M. E. and Rauh, D. (2012). "Targeting GSK3 from *Ustilago maydis*: type-II kinase inhibitors as potential antifungals." *ACS Chem Biol* **7**: 1257-1267. <http://www.ncbi.nlm.nih.gov/pubmed/22545924> **GSK-3 (Ser/Thr)**.
- 36) Hall, J., Aulabaugh, A., Rajamohan, F., Liu, S., Kaila, N., Wan, Z. K., Ryan, M., Magyar, R. and Qiu, X. (2012). "Biophysical and mechanistic insights into novel allosteric inhibitor of spleen tyrosine kinase." *J Biol Chem* **287**: 7717-7727. <http://www.ncbi.nlm.nih.gov/pubmed/22219190> **SYK (Tyr)**.
- 37) Desai, B., Dixon, K., Farrant, E., Feng, Q., Gibson, K. R., van Hoorn, W. P., Mills, J., Morgan, T., Parry, D. M., Ramjee, M. K., Selway, C. N., Tarver, G. J., Whitlock, G. and Wright, A. G. (2013). "Rapid discovery of a novel series of Abl kinase inhibitors by application of an integrated microfluidic synthesis and screening platform." *J Med Chem* **56**: 3033-3047. <http://www.ncbi.nlm.nih.gov/pubmed/23441572> **ABL (Tyr), Microfluidics**.
- 38) Evans, E. K., Tester, R., Aslanian, S., Karp, R., Sheets, M., Labenski, M. T., Witowski, S. R., Lounsbury, H., Chaturvedi, P., Mazdiyasni, H., Zhu, Z., Nacht, M., Freed, M. I., Petter, R. C., Dubrovskiy, A., Singh, J. and Westlin, W. F. (2013). "Inhibition of Btk with CC-292 provides early pharmacodynamic assessment of activity in mice and humans." *J Pharmacol Exp Ther* **346**: 219-228. <http://www.ncbi.nlm.nih.gov/pubmed/23709115> **BTK (Tyr), Covalent Inhibitors**.
- 39) Grutter, C., Sreeramulu, S., Sessa, G. and Rauh, D. (2013). "Structural characterization of the RLCK family member BSK8: a pseudokinase with an unprecedented architecture." *J Mol Biol* **425**: 4455-4467. <http://www.ncbi.nlm.nih.gov/pubmed/23911552> **BSK5 & 8 (Ser/Thr)**.
- 40) Jin, M., Petronella, B. A., Cooke, A., Kadalbajoo, M., Siu, K. W., Kleinberg, A., May, E. W., Gokhale, P. C., Schulz, R., Kahler, J., Bittner, M. A., Foreman, K., Pachter, J. A., Wild, R., Epstein, D. and Mulvihill, M. J. (2013). "Discovery of novel insulin-like growth factor-1 receptor inhibitors with unique time-dependent binding kinetics." *ACS Med Chem Lett* **4**: 627-631. <http://www.ncbi.nlm.nih.gov/pubmed/24900721> **IGF-1R (Tyr)**.
- 41) Kaasik, K., Kivimae, S., Allen, J. J., Chalkley, R. J., Huang, Y., Baer, K., Kissel, H., Burlingame, A. L., Shokat, K. M., Ptacek, L. J. and Fu, Y. H. (2013). "Glucose sensor O-GlcNAcylation coordinates with phosphorylation to regulate circadian clock." *Cell Metab* **17**: 291-302. <http://www.ncbi.nlm.nih.gov/pubmed/23395175> **GSK-3beta (Ser/Thr)**.
- 42) Ma, L., Clayton, J. R., Walgren, R. A., Zhao, B., Evans, R. J., Smith, M. C., Heinz-Taheny, K. M., Kreklau, E. L., Bloem, L., Pitou, C., Shen, W., Strelow, J. M., Halstead, C., Rempala, M. E., Parthasarathy, S., Gillig, J. R., Heinz, L. J., Pei, H., Wang, Y., Stancato, L. F., Dowless, M. S., Iversen, P. W. and Burkholder, T. P. (2013). "Discovery and characterization of LY2784544, a small-molecule tyrosine kinase inhibitor of JAK2V617F." *Blood Cancer J* **3**: e109. <http://www.ncbi.nlm.nih.gov/pubmed/23584399> **JAK2 (Tyr)**.

- 43) Nhu Ngoc Van T1, Morris MC (2013) "Fluorescent sensors of protein kinases: from basics to biomedical applications." *Prog Mol Biol Transl Sci*. 113:217-74.  
<https://www.ncbi.nlm.nih.gov/pubmed/23244792> **Review**.
- 44) Oruganty, K., Talathi, N. S., Wood, Z. A. and Kannan, N. (2013). "Identification of a hidden strain switch provides clues to an ancient structural mechanism in protein kinases." *Proc Natl Acad Sci U S A* **110**: 924-929. <http://www.ncbi.nlm.nih.gov/pubmed/23277537> **Aurora (Ser/Thr)**.
- 45) Perspicace, E., Jouan-Hureau, V., Ragno, R., Ballante, F., Sartini, S., La Motta, C., Da Settimo, F., Chen, B., Kirsch, G., Schneider, S., Faivre, B. and Hesse, S. (2013). "Design, synthesis and biological evaluation of new classes of thieno[3,2-d]pyrimidinone and thieno[1,2,3]triazine as inhibitor of vascular endothelial growth factor receptor-2 (VEGFR-2)." *Eur J Med Chem* **63**: 765-781.  
<http://www.ncbi.nlm.nih.gov/pubmed/23583911> **VEGFR-2/KDR (Tyr)**.
- 46) Zamora-Olivares, D., Kaoud, T. S., Dalby, K. N. and Anslyn, E. V. (2013). "In-situ generation of differential sensors that fingerprint kinases and the cellular response to their expression." *J Am Chem Soc* **135**: 14814-14820. <http://www.ncbi.nlm.nih.gov/pubmed/23991633> **MAPKs - ERK-1/2, JNK-3 & p38 $\gamma$  (Ser/Thr)**.
- 47) Akl, M. R., Ayoub, N. M., Mohyeldin, M. M., Busnena, B. A., Foudah, A. I., Liu, Y. Y. and Sayed, K. A. (2014). "Olive phenolics as c-Met inhibitors: (-)-Oleocanthal attenuates cell proliferation, invasiveness, and tumor growth in breast cancer models." *PLoS One* **9**: e97622.  
<http://www.ncbi.nlm.nih.gov/pubmed/24849787> **cMET/HGFR (Tyr)**.
- 48) Devkota, A. K., Warthaka, M., Edupuganti, R., Tavares, C. D., Johnson, W. H., Ozpolat, B., Cho, E. J. and Dalby, K. N. (2014). "High-throughput screens for eEF-2 kinase." *J Biomol Screen* **19**: 445-452.  
<http://www.ncbi.nlm.nih.gov/pubmed/24078616> **eEF-2K (Ser/Thr)**.
- 49) Dumble, M., Crouthamel, M. C., Zhang, S. Y., Schaber, M., Levy, D., Robell, K., Liu, Q., Figueroa, D. J., Minthorn, E. A., Seefeld, M. A., Rouse, M. B., Rabindran, S. K., Heerding, D. A. and Kumar, R. (2014). "Discovery of novel AKT inhibitors with enhanced anti-tumor effects in combination with the MEK inhibitor." *PLoS One* **9**: e100880. <http://www.ncbi.nlm.nih.gov/pubmed/24978597> **AKT 1, 2 & 3 (Ser/Thr)**.
- 50) Edupuganti, R., Wang, Q., Tavares, C. D., Chitjian, C. A., Bachman, J. L., Ren, P., Anslyn, E. V. and Dalby, K. N. (2014). "Synthesis and biological evaluation of pyrido[2,3-d]pyrimidine-2,4-dione derivatives as eEF-2K inhibitors." *Bioorg Med Chem* **22**: 4910-4916. <http://www.ncbi.nlm.nih.gov/pubmed/25047940> **eEF-2K (Ser/Thr)**.
- 51) He, L., Liao, S. Y., Tan, C. P., Lu, Y. Y., Xu, C. X., Ji, L. N. and Mao, Z. W. (2014). "Cyclometalated iridium(III)-beta-carboline complexes as potent autophagy-inducing agents." *Chem Commun (Camb)* **50**: 5611-5614. <http://www.ncbi.nlm.nih.gov/pubmed/24728495> **CDK1 & 2 (Ser/Thr)**.
- 52) Keller, K. E., Doctor, Z. M., Dwyer, Z. W. and Lee, Y. S. (2014). "SAICAR induces protein kinase activity of PKM2 that is necessary for sustained proliferative signaling of cancer cells." *Mol Cell* **53**: 700-709.  
<http://www.ncbi.nlm.nih.gov/pubmed/24606918> **MAPKs - ERK1 & 2 (Ser/Thr)**.
- 53) Paris, D., Ait-Ghezala, G., Bachmeier, C., Laco, G., Beaulieu-Abdelahad, D., Lin, Y., Jin, C., Crawford, F. and Mullan, M. (2014). "The spleen tyrosine kinase (Syk) regulates Alzheimer amyloid-beta production and Tau hyperphosphorylation." *J Biol Chem* **289**: 33927-33944.  
<http://www.ncbi.nlm.nih.gov/pubmed/25331948> **SYK (Tyr)**.



- 54) Ramji, R., Wang, M., Bhagat, A. A., Tan Shao Weng, D., Thakor, N. V., Teck Lim, C. and Chen, C. H. (2014). "Single cell kinase signaling assay using pinched flow coupled droplet microfluidics." *Biomicrofluidics* **8**: 034104. <http://www.ncbi.nlm.nih.gov/pubmed/24926389> **EGFR (Tyr)**. **Microfluidics**.
- 55) Ressurreicao, M., De Saram, P., Kirk, R. S., Rollinson, D., Emery, A. M., Page, N. M., Davies, A. J. and Walker, A. J. (2014). "Protein kinase C and extracellular signal-regulated kinase regulate movement, attachment, pairing and egg release in *Schistosoma mansoni*." *PLoS Negl Trop Dis* **8**: e2924. <http://www.ncbi.nlm.nih.gov/pubmed/24921927> **PKC (Ser/Thr)**.
- 56) Sarkar, A., Kowitz, S., Lauffenburger, D. A. and Han, J. (2014). "Microfluidic probe for single-cell analysis in adherent tissue culture." *Nat Commun* **5**: 3421. <http://www.ncbi.nlm.nih.gov/pubmed/24594667> **AKT (Ser/Thr)**, **Microfluidics**.
- 57) Sartini, S., Coviello, V., Bruno, A., La Pietra, V., Marinelli, L., Simorini, F., Taliani, S., Salerno, S., Marini, A. M., Fioravanti, A., Orlandi, P., Antonelli, A., Da Settimo, F., Novellino, E., Bocci, G. and La Motta, C. (2014). "Structure-based optimization of tyrosine kinase inhibitor CLM3. Design, synthesis, functional evaluation, and molecular modeling studies." *J Med Chem* **57**: 1225-1235. <http://www.ncbi.nlm.nih.gov/pubmed/24447248> **VEGFR2/KDR and RET (Tyr)**.
- 58) Schwartz, P. A., Kuzmic, P., Solowiej, J., Bergqvist, S., Bolanos, B., Almaden, C., Nagata, A., Ryan, K., Feng, J., Dalvie, D., Kath, J. C., Xu, M., Wani, R. and Murray, B. W. (2014). "Covalent EGFR inhibitor analysis reveals importance of reversible interactions to potency and mechanisms of drug resistance." *Proc Natl Acad Sci U S A* **111**: 173-178. <http://www.ncbi.nlm.nih.gov/pubmed/24347635> **EGFR (Tyr)**, **Covalent Inhibitors**.
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**Note: Several papers from customers using PhosphoSens® are being finalized for submission. Collaborating with key opinion leaders (KOLs) has already started and will be a focus for AssayQuant® in next phase starting in 2019.**