

NBCC Publication List

Separated by year, alphabetical by first author

2020

Bagci, H., N. Sriskandarajah, A. Robert, J. Boulais, I.E. Elkholi, V. Tran, Z.Y. Lin, M.P. Thibault, N. Dube, D. Faubert, D.R. Hipfner, A.C. Gingras, and J.F. Cote, *Mapping the proximity interaction network of the Rho-family GTPases reveals signalling pathways and regulatory mechanisms*. Nat Cell Biol, 2020. **22**(1): p. 120-134.

Bian, Y., R. Zheng, F.P. Bayer, C. Wong, Y.C. Chang, C. Meng, D.P. Zolg, M. Reinecke, J. Zecha, S. Wiechmann, S. Heinzlmeir, J. Scherr, B. Hemmer, M. Baynham, A.C. Gingras, O. Boychenko, and B. Kuster, *Robust, reproducible and quantitative analysis of thousands of proteomes by micro-flow LC-MS/MS*. Nat Commun, 2020. **11**(1): p. 157.

Meant, A., B. Gao, G. Lavoie, S. Nourreddine, F. Jung, L. Aubert, J. Tcherkezian, A.C. Gingras, and P.P. Roux, *Proteomic Analysis Reveals a Role for RSK in p120-catenin Phosphorylation and Melanoma Cell-Cell Adhesion*. Mol Cell Proteomics, 2020. **19**(1): p. 50-64.

Moskal, N., V. Riccio, M. Bashkurov, R. Taddese, A. Datti, P.N. Lewis, and G. Angus McQuibban, *ROCK inhibitors upregulate the neuroprotective Parkin-mediated mitophagy pathway*. Nat Commun, 2020. **11**(1): p. 88.

2019

Ashraf, K., S. Nabeel-Shah, J. Garg, A. Saettone, J. Derynck, A.C. Gingras, J.P. Lambert, R.E. Pearlman, and J. Fillingham, *Proteomic analysis of histones H2A/H2B and variant Hv1 in Tetrahymena thermophila reveals an ancient network of chaperones*. Mol Biol Evol, 2019.

Ayyaz, A., S. Kumar, B. Sangiorgi, B. Ghoshal, J. Gosio, S. Ouladan, M. Fink, S. Barutcu, D. Trcka, J. Shen, K. Chan, J.L. Wrana, and A. Gregorieff, *Single-cell transcriptomes of the regenerating intestine reveal a revival stem cell*. Nature, 2019. **569**(7754): p. 121-125.

Black, M., F. Ghasemi, R.X. Sun, W. Stecho, A. Datti, J. Meens, N. Pinto, K.M. Ruicci, M.I. Khan, M.W. Han, M. Shaikh, J. Yoo, K. Fung, D. MacNeil, D.A. Palma, E. Winquist, C.J. Howlett, J.S. Mymryk, L. Ailles, P.C. Boutros, J.W. Barrett, and A.C. Nichols, *Spleen tyrosine kinase expression is correlated with human papillomavirus in head and neck cancer*. Oral Oncol, 2019. **101**: p. 104529.

Ceccarelli, D.F., S. Ivantsiv, A.A. Mullin, E. Coyaud, N. Manczyk, P. Maisonneuve, I. Kurinov, L. Zhao, C. Go, A.C. Gingras, B. Raught, S. Cordes, and F. Sicheri, *FAM105A/OTULINL Is a Pseudodeubiquitinase of the OTU-Class that Localizes to the ER Membrane*. Structure, 2019. **27**(6): p. 1000-1012 e6.

Chapman, E.M., B. Lant, Y. Ohashi, B. Yu, M. Schertzberg, C. Go, D. Dogra, J. Koskimaki, R. Girard, Y. Li, A.G. Fraser, I.A. Awad, S. Abdelilah-Seyfried, A.C. Gingras, and W.B. Derry, *A conserved CCM complex promotes apoptosis non-autonomously by regulating zinc homeostasis*. Nat Commun, 2019. **10**(1): p. 1791.

Gheiratmand, L., E. Coyaud, G.D. Gupta, E.M. Laurent, M. Hasegan, S.L. Prosser, J. Goncalves, B. Raught, and L. Pelletier, *Spatial and proteomic profiling reveals centrosome-independent features of centriolar satellites*. EMBO J, 2019.

Herbert, K., R. Binet, J.P. Lambert, P. Louphrasitthiphol, H. Kalkavan, L. Sesma-Sanz, C.D. Robles-Espinoza, S. Sarkar, E. Suer, S. Andrews, J. Chauhan, N.D. Roberts, M.R. Middleton, A.C. Gingras, J.Y. Masson, L. Larue, P. Falletta, and C.R. Goding, *BRN2 suppresses apoptosis, reprograms DNA damage repair, and is associated with a high somatic mutation burden in melanoma*. Genes Dev, 2019. **33**(5-6): p. 310-332.

Hui, K.K., C. Dojo Soeandy, S. Chang, F.S. Vizeacoumar, T. Sun, A. Datti, and J.T. Henderson, *Cell-based high-throughput screen for small molecule inhibitors of Bax translocation*. J Cell Mol Med, 2019. **23**(3): p. 1784-1797.

Hustedt, N., A. Alvarez-Quilon, A. McEwan, J.Y. Yuan, T. Cho, L. Koob, T. Hart, and D. Durocher, *A consensus set of genetic vulnerabilities to ATR inhibition*. Open Biol, 2019. **9**(9): p. 190156.

Hustedt, N., Y. Saito, M. Zimmermann, A. Alvarez-Quilon, D. Setiaputra, S. Adam, A. McEwan, J.Y. Yuan, M. Olivieri, Y. Zhao, M.T. Kanemaki, A. Jurisicova, and D. Durocher, *Control of homologous recombination by the HROB-MCM8-MCM9 pathway*. Genes Dev, 2019.

Knight, J.D.R., P. Samavarchi-Tehrani, M. Tyers, and A.C. Gingras, *Gene Information eXtension (GLIX): effortless retrieval of gene product information on any website*. Nat Methods, 2019. **16**(8): p. 665-666.

Lambert, J.P., S. Picaud, T. Fujisawa, H. Hou, P. Savitsky, L. Uuskula-Reimand, G.D. Gupta, H. Abdouni, Z.Y. Lin, M. Tucholska, J.D.R. Knight, B. Gonzalez-Badillo, N. St-Denis, J.A. Newman, M. Stucki, L. Pelletier, N. Bandeira, M.D. Wilson, P. Filippakopoulos, and A.C. Gingras, *Interactome Rewiring Following Pharmacological Targeting of BET Bromodomains*. Mol Cell, 2019. **73**(3): p. 621-638 e17.

Luo, Y., M. Barrios-Rodiles, G.D. Gupta, Y.Y. Zhang, A.A. Ogunjimi, M. Bashkurov, J.M. Tkach, A.Q. Underhill, L. Zhang, M. Bourmoum, J.L. Wrana, and L. Pelletier, *Atypical function of a centrosomal module in WNT signalling drives contextual cancer cell motility*. Nat Commun, 2019. **10**(1): p. 2356.

MacLeod, G., D.A. Bozek, N. Rajakulendran, V. Monteiro, M. Ahmadi, Z. Steinhart, M.M. Kushida, H. Yu, F.J. Coutinho, F.M.G. Cavalli, I. Restall, X. Hao, T. Hart, H.A. Luchman, S. Weiss, P.B. Dirks, and S. Angers, *Genome-Wide CRISPR-Cas9 Screens Expose Genetic Vulnerabilities and Mechanisms of Temozolomide Sensitivity in Glioblastoma Stem Cells*. Cell Rep, 2019. **27**(3): p. 971-986 e9.

O'Meara, T.R., M.J. O'Meara, E.J. Polvi, M.R. Pourhaghighi, S.D. Liston, Z.Y. Lin, A.O. Veri, A. Emili, A.C. Gingras, and L.E. Cowen, *Global proteomic analyses define an environmentally contingent Hsp90 interactome and reveal chaperone-dependent regulation of stress granule proteins and the R2TP complex in a fungal pathogen*. PLoS Biol, 2019. **17**(7): p. e3000358.

Polvi, E.J., A.O. Veri, Z. Liu, S. Hossain, S. Hyde, S.H. Kim, F. Tebbji, A. Sellam, R.T. Todd, J.L. Xie, Z.Y. Lin, C.J. Wong, R.S. Shapiro, M. Whiteway, N. Robbins, A.C. Gingras, A. Selmecki, and L.E. Cowen, *Functional divergence of a global regulatory complex governing fungal filamentation*. PLoS Genet, 2019. **15**(1): p. e1007901.

Shakiba, N., A. Fahmy, G. Jayakumaran, S. McGibbon, L. David, D. Trcka, J. Elbaz, M.C. Puri, A. Nagy, D. van der Kooy, S. Goyal, J.L. Wrana, and P.W. Zandstra, *Cell competition during reprogramming gives rise to dominant clones*. Science, 2019. **364**(6438).

Shi, Y., W. Gao, N.K. Lytle, P. Huang, X. Yuan, A.M. Dann, M. Ridinger-Saison, K.E. DelGiorno, C.E. Antal, G. Liang, A.R. Atkins, G. Erikson, H. Sun, J. Meisenhelder, E. Terenziani, G. Woo, L. Fang, T.P. Santisakultarm, U. Manor, R. Xu, C.R. Becerra, E. Borazanci, D.D. Von Hoff, P.M. Grandgenett, M.A. Hollingsworth, M. Leblanc, S.E. Umetsu, E.A. Collisson, M. Scadeng, A.M. Lowy, T.R. Donahue, T. Reya, M. Downes, R.M. Evans, G.M. Wahl, T. Pawson, R. Tian, and T. Hunter, *Targeting LIF-mediated paracrine interaction for pancreatic cancer therapy and monitoring*. Nature, 2019. **569**(7754): p. 131-135.

Torres-Mendez, A., S. Bonnal, Y. Marquez, J. Roth, M. Iglesias, J. Permanyer, I. Almudi, D. O'Hanlon, T. Guitart, M. Soller, A.C. Gingras, F. Gebauer, F. Rentzsch, B.J. Blencowe, J. Valcarcel, and M. Irimia, *A novel protein domain in an ancestral splicing factor drove the evolution of neural microexons*. Nat Ecol Evol, 2019. **3**(4): p. 691-701.

Yeung, T., O. Fung, M. Bashkurov, A. Khandani, O. Subedar, A. Wudwud, P. Shaw, B. Clarke, J. Bartlett, R. Rottapel, and A. Kapus, *Avoidance of apoptotic death via a hyperploid salvage survival pathway after platinum treatment in high grade serous carcinoma cell line models*. Oncotarget, 2019. **10**(62): p. 6691-6712.

Brandmann, T., H. Fakim, Z. Padamsi, J.Y. Youn, A.C. Gingras, M.R. Fabian, and M. Jinek, *Molecular architecture of LSM14 interactions involved in the assembly of mRNA silencing complexes*. EMBO J, 2018. **37**(7).

Canning, P., K. Park, J. Goncalves, C. Li, C.J. Howard, T.D. Sharpe, L.J. Holt, L. Pelletier, A.N. Bullock, and M.R. Leroux, *CDKL Family Kinases Have Evolved Distinct Structural Features and Ciliary Function*. Cell Rep, 2018. **22**(4): p. 885-894.

Canny, M.D., N. Moatti, L.C.K. Wan, A. Fradet-Turcotte, D. Krasner, P.A. Mateos-Gomez, M. Zimmermann, A. Orthwein, Y.C. Juang, W. Zhang, S.M. Noordermeer, E. Seclen, M.D. Wilson, A. Vorobyov, M. Munro, A. Ernst, T.F. Ng, T. Cho, P.M. Cannon, S.S. Sidhu, F. Sicheri, and D. Durocher, *Inhibition of 53BP1 favors homology-dependent DNA repair and increases CRISPR-Cas9 genome-editing efficiency*. Nat Biotechnol, 2018. **36**(1): p. 95-102.

Coyaud, E., C. Ranadheera, D. Cheng, J. Goncalves, B.J.A. Dyakov, E.M.N. Laurent, J. St-Germain, L. Pelletier, A.C. Gingras, J.H. Brumell, P.K. Kim, D. Safronetz, and B. Raught, *Global Interactomics Uncovers Extensive Organellar Targeting by Zika Virus*. Mol Cell Proteomics, 2018. **17**(11): p. 2242-2255.

Emmer, B.T., G.G. Hesketh, E. Kotnik, V.T. Tang, P.J. Lascuna, J. Xiang, A.C. Gingras, X.W. Chen, and D. Ginsburg, *The cargo receptor SURF4 promotes the efficient cellular secretion of PCSK9*. Elife, 2018. **7**.

Ghasemi, F., M. Black, R.X. Sun, F. Vizeacoumar, N. Pinto, K.M. Ruicci, J. Yoo, K. Fung, D. MacNeil, D.A. Palma, E. Winquist, J.S. Mymryk, L.A. Ailles, A. Datti, J.W. Barrett, P.C. Boutros, and A.C. Nichols, *High-throughput testing in head and neck squamous cell carcinoma identifies agents with preferential activity in human papillomavirus-positive or negative cell lines*. Oncotarget, 2018. **9**(40): p. 26064-26071.

Gill, M.K., T. Christova, Y.Y. Zhang, A. Gregorieff, L. Zhang, M. Narimatsu, S. Song, S. Xiong, A.L. Couzens, J. Tong, J.R. Krieger, M.F. Moran, A.R. Zlotta, T.H. van der Kwast, A.C. Gingras, F. Sicheri, J.L. Wrana, and L. Attisano, *A feed forward loop enforces YAP/TAZ signaling during tumorigenesis*. Nat Commun, 2018. **9**(1): p. 3510.

Gingras, A.C., K.T. Abe, and B. Raught, *Getting to know the neighborhood: using proximity-dependent biotinylation to characterize protein complexes and map organelles*. Curr Opin Chem Biol, 2018. **48**: p. 44-54.

Gonatopoulos-Pournatzis, T., M. Wu, U. Braunschweig, J. Roth, H. Han, A.J. Best, B. Raj, M. Aregger, D. O'Hanlon, J.D. Ellis, J.A. Calarco, J. Moffat, A.C. Gingras, and B.J. Blencowe, *Genome-wide CRISPR-Cas9 Interrogation of Splicing Networks Reveals a Mechanism for Recognition of Autism-Misregulated Neuronal Microexons*. Mol Cell, 2018. **72**(3): p. 510-524 e12.

Hunter, M.R., G.G. Hesketh, T.H. Benedyk, A.C. Gingras, and S.C. Graham, *Proteomic and Biochemical Comparison of the Cellular Interaction Partners of Human VPS33A and VPS33B*. J Mol Biol, 2018. **430**(14): p. 2153-2163.

Khan, M., J.Y. Youn, A.C. Gingras, R. Subramaniam, and D. Desveaux, *In planta proximity dependent biotin identification (BioID)*. Sci Rep, 2018. **8**(1): p. 9212.

Khoriaty, R., G.G. Hesketh, A. Bernard, A.C. Weyand, D. Mellacheruvu, G. Zhu, M.J. Hoenerhoff, B. McGee, L. Everett, E.J. Adams, B. Zhang, T.L. Saunders, A.I. Nesvizhskii, D.J. Klionsky, J.A. Shavit, A.C. Gingras, and D. Ginsburg, *Functions of the COPII gene paralogs SEC23A and SEC23B are interchangeable in vivo*. Proc Natl Acad Sci U S A, 2018. **115**(33): p. E7748-E7757.

Knight, J.F., V.Y.C. Sung, E. Kuzmin, A.L. Couzens, D.A. de Verteuil, C.D.H. Ratcliffe, P.P. Coelho, R.M. Johnson, P. Samavarchi-Tehrani, T. Gruosso, H.W. Smith, W. Lee, S.M. Saleh, D. Zuo, H. Zhao, M.C. Guiot, R.R. Davis, J.P. Gregg, C. Moraes, A.C. Gingras, and M. Park, *KIBRA (WWC1) Is a Metastasis Suppressor Gene Affected by Chromosome 5q Loss in Triple-Negative Breast Cancer*. Cell Rep, 2018. **22**(12): p. 3191-3205.

Liu, J.C., L. Granieri, M. Shrestha, D.Y. Wang, I. Vorobieva, E.A. Rubie, R. Jones, Y. Ju, G. Pellecchia, Z. Jiang, C.A. Palmerini, Y. Ben-David, S.E. Egan, J.R. Woodgett, G.D. Bader, A. Datti, and E. Zacksenhaus, *Identification of CDC25 as a Common Therapeutic Target for Triple-Negative Breast Cancer*. Cell Rep, 2018. **23**(1): p. 112-126.

Liu, Y., G.D. Gupta, D.D. Barnabas, F.G. Agircan, S. Mehmood, D. Wu, E. Coyaud, C.M. Johnson, S.H. McLaughlin, A. Andreeva, S.M.V. Freund, C.V. Robinson, S.W.T. Cheung, B. Raught, L. Pelletier, and M. van Breugel, *Direct binding of CEP85 to STIL ensures robust PLK4 activation and efficient centriole assembly*. Nat Commun, 2018. **9**(1): p. 1731.

Nishimura, T., H. Fakim, T. Brandmann, J.Y. Youn, A.C. Gingras, M. Jinek, and M.R. Fabian, *Human MARF1 is an endoribonuclease that interacts with the DCPI:2 decapping complex and degrades target mRNAs*. Nucleic Acids Res, 2018.

Noordermeer, S.M., S. Adam, D. Setiaputra, M. Barazas, S.J. Pettitt, A.K. Ling, M. Olivieri, A. Alvarez-Quilon, N. Moatti, M. Zimmermann, S. Annunziato, D.B. Krastev, F. Song, I. Brandsma, J. Frankum, R. Brough, A. Sherker, S. Landry, R.K. Szilard, M.M. Munro, A. McEwan, T. Goulet de Rugy, Z.Y. Lin, T. Hart, J. Moffat, A.C. Gingras, A. Martin, H. van Attikum, J. Jonkers, C.J. Lord, S. Rottenberg, and D. Durocher, *The shieldin complex mediates 53BP1-dependent DNA repair*. Nature, 2018. **560**(7716): p. 117-121.

Pinto, N., S.D. Prokopec, F. Vizeacoumar, K. Searle, M. Lowerison, K.M. Ruicci, J. Yoo, K. Fung, D. MacNeil, J.C. Lacefield, H.S. Leong, J.S. Mymryk, J.W. Barrett, A. Datti, P.C. Boutros, and A.C. Nichols, *Lestaurtinib is a potent inhibitor of anaplastic thyroid cancer cell line models*. PLoS One, 2018. **13**(11): p. e0207152.

Saettone, A., J. Garg, J.P. Lambert, S. Nabeel-Shah, M. Ponce, A. Burtch, C. Thuppu Mudalige, A.C. Gingras, R.E. Pearlman, and J. Fillingham, *The bromodomain-containing protein Ibd1 links multiple chromatin-related protein complexes to highly expressed genes in Tetrahymena thermophila*. Epigenetics Chromatin, 2018. **11**(1): p. 10.

Samavarchi-Tehrani, P., H. Abdouni, R. Samson, and A.C. Gingras, *A Versatile Lentiviral Delivery Toolkit for Proximity-dependent Biotinylation in Diverse Cell Types*. Mol Cell Proteomics, 2018. **17**(11): p. 2256-2269.

Xiong, S., K. Lorenzen, A.L. Couzens, C.M. Templeton, D. Rajendran, D.Y.L. Mao, Y.C. Juang, D. Chiovitti, I. Kurinov, S. Guettler, A.C. Gingras, and F. Sicheri, *Structural Basis for Auto-Inhibition of the NDR1 Kinase Domain by an Atypically Long Activation Segment*. Structure, 2018. **26**(8): p. 1101-1115 e6.

Youn, J.Y., W.H. Dunham, S.J. Hong, J.D.R. Knight, M. Bashkurov, G.I. Chen, H. Bagci, B. Rathod, G. MacLeod, S.W.M. Eng, S. Angers, Q. Morris, M. Fabian, J.F. Cote, and A.C. Gingras, *High-Density Proximity Mapping Reveals the Subcellular Organization of mRNA-Associated Granules and Bodies*. Mol Cell, 2018. **69**(3): p. 517-532 e11.

Zimmermann, M., O. Murina, M.A.M. Reijns, A. Agathangelou, R. Challis, Z. Tarnauskaite, M. Muir, A. Fluteau, M. Aregger, A. McEwan, W. Yuan, M. Clarke, M.B. Lambros, S. Paneesha, P. Moss, M. Chandrashekar, S. Angers, J. Moffat, V.G. Brunton, T. Hart, J. de Bono, T. Stankovic, A.P. Jackson, and D. Durocher, *CRISPR screens identify genomic ribonucleotides as a source of PARP-trapping lesions*. Nature, 2018. **559**(7713): p. 285-289.

2017

Antonicka, H., K. Choquet, Z.Y. Lin, A.C. Gingras, C.L. Kleinman, and E.A. Shoubridge, *A pseudouridine synthase module is essential for mitochondrial protein synthesis and cell viability*. EMBO Rep, 2017. **18**(1): p. 28-38.

Barrios-Rodiles, M., J.D. Ellis, B.J. Blencowe, and J.L. Wrana, *LUMIER: A Discovery Tool for Mammalian Protein Interaction Networks*. Methods Mol Biol, 2017. **1550**: p. 137-148.

Batenburg, N.L., J.R. Walker, S.M. Noordermeer, N. Moatti, D. Durocher, and X.D. Zhu, *ATM and CDK2 control chromatin remodeler CSB to inhibit RIF1 in DSB repair pathway choice*. Nat Commun, 2017. **8**(1): p. 1921.

Chapat, C., S.M. Jafarnejad, E. Matta-Camacho, G.G. Hesketh, I.A. Gelbart, J. Attig, C.G. Gkogkas, T. Alain, N. Stern-Ginossar, M.R. Fabian, A.C. Gingras, T.F. Duchaine, and N. Sonenberg, *Cap-binding protein 4EHP effects translation silencing by microRNAs*. Proc Natl Acad Sci U S A, 2017. **114**(21): p. 5425-5430.

Collins, B.C., C.L. Hunter, Y. Liu, B. Schilling, G. Rosenberger, S.L. Bader, D.W. Chan, B.W. Gibson, A.C. Gingras, J.M. Held, M. Hirayama-Kurogi, G. Hou, C. Krisp, B. Larsen, L. Lin, S. Liu, M.P. Molloy, R.L. Moritz, S. Ohtsuki, R. Schlapbach, N. Selevsek, S.N. Thomas, S.C. Tzeng, H. Zhang, and R. Aebersold, *Multi-laboratory assessment of reproducibility, qualitative and quantitative performance of SWATH-mass spectrometry*. Nat Commun, 2017. **8**(1): p. 291.

Couzens, A.L., S. Xiong, J.D. Knight, D.Y. Mao, S. Guettler, S. Picaud, I. Kurinov, P. Filippakopoulos, F. Sicheri, and A.C. Gingras, *MOB1 mediated phospho-recognition in the core mammalian Hippo pathway*. Mol Cell Proteomics, 2017.

Ghasemi, F., M. Black, F. Vizeacoumar, N. Pinto, K.M. Ruicci, C.C. Son Huu Le, M.R. Lowerison, H.S. Leong, J. Yoo, K. Fung, D. MacNeil, D.A. Palma, E. Winkvist, J.S. Mymryk, P.C. Boutros, A. Datti, J.W. Barrett, and A.C. Nichols, *Repurposing Albendazole: new potential as a chemotherapeutic agent with preferential activity against HPV-negative head and neck squamous cell cancer*. Oncotarget, 2017.

Gu, B., J.P. Lambert, K. Cockburn, A.C. Gingras, and J. Rossant, *AIRE is a critical spindle-associated protein in embryonic stem cells*. Elife, 2017. **6**.

Gueroussov, S., R.J. Weatheritt, D. O'Hanlon, Z.Y. Lin, A. Narula, A.C. Gingras, and B.J. Blencowe, *Regulatory Expansion in Mammals of Multivalent hnRNP Assemblies that Globally Control Alternative Splicing*. Cell, 2017. **170**(2): p. 324-339 e23.

Han, H., U. Braunschweig, T. Gonatopoulos-Pournatzis, R.J. Weatheritt, C.L. Hirsch, K.C. Ha, E. Radovani, S. Nabeel-Shah, T. Sterne-Weiler, J. Wang, D. O'Hanlon, Q. Pan, D. Ray, H. Zheng, F. Vizeacoumar, A. Datti, L. Magomedova, C.L. Cummins, T.R. Hughes, J.F. Greenblatt, J.L. Wrana, J. Moffat, and B.J. Blencowe, *Multilayered Control of Alternative Splicing Regulatory Networks by Transcription Factors*. Mol Cell, 2017. **65**(3): p. 539-553 e7.

Hesketh, G.G., J.Y. Youn, P. Samavarchi-Tehrani, B. Raught, and A.C. Gingras, *Parallel Exploration of Interaction Space by BioID and Affinity Purification Coupled to Mass Spectrometry*. Methods Mol Biol, 2017. **1550**: p. 115-136.

Johnston, W.L., A. Krizus, A.K. Ramani, W. Dunham, J.Y. Youn, A.G. Fraser, A.C. Gingras, and J.W. Dennis, *C. elegans SUP-46, an HNRNPM family RNA-binding protein that prevents paternally-mediated epigenetic sterility*. BMC Biol, 2017. **15**(1): p. 61.

Knight, J.D.R., H. Choi, G.D. Gupta, L. Pelletier, B. Raught, A.I. Nesvizhskii, and A.C. Gingras, *ProHits-viz: a suite of web tools for visualizing interaction proteomics data*. Nat Methods, 2017. **14**(7): p. 645-646.

Mahadevan, V., C.S. Khademullah, Z. Dargaei, J. Chevrier, P. Uvarov, J. Kwan, R.D. Bagshaw, T. Pawson, A. Emili, Y. De Koninck, V. Anggono, M. Airaksinen, and M.A. Woodin, *Native KCC2 interactome reveals PACSIN1 as a critical regulator of synaptic inhibition*. Elife, 2017. **6**.

Mojarad, B.A., G.D. Gupta, M. Hasegan, O. Goudiam, R. Basto, A.C. Gingras, and L. Pelletier, *CEP19 cooperates with FOP and CEP350 to drive early steps in the ciliogenesis programme*. Open Biol, 2017. **7**(6).

Schraeder, C.U., L. Lee, M. Rey, V. Sarpe, P. Man, S. Sharma, V. Zabrouskov, B. Larsen, and D.C. Schriemer, *Neprosin, a selective prolyl endoprotease for bottom-up proteomics and histone mapping*. Mol Cell Proteomics, 2017.

Smith, M.J., E. Ottoni, N. Ishiyama, M. Goudreault, A. Haman, C. Meyer, M. Tucholska, G. Gasmi-Seabrook, S. Menezes, R.C. Laister, M.D. Minden, R. Marschalek, A.C. Gingras, T. Hoang, and M. Ikura, *Evolution of AF6-RAS association and its implications in mixed-lineage leukemia*. Nat Commun, 2017. **8**(1): p. 1099.

Tsai, A.Y., K. Chan, C.Y. Ho, T. Canam, R. Capron, E.R. Master, and K. Brautigam, *Transgenic expression of fungal accessory hemicellulases in Arabidopsis thaliana triggers transcriptional patterns related to biotic stress and defense response*. PLoS One, 2017. **12**(3): p. e0173094.

Uhrig, R.G., A.M. Labandera, L.Y. Tang, N.A. Sieben, M. Goudreault, E. Yeung, A.C. Gingras, M.A. Samuel, and G.B. Moorhead, *Activation of Mitochondrial Protein Phosphatase SLP2 by MIA40 Regulates Seed Germination*. Plant Physiol, 2017. **173**(2): p. 956-969.

Xie, J.L., I. Bohovych, E.O.Y. Wong, J.P. Lambert, A.C. Gingras, O. Khalimonchuk, L.E. Cowen, and M.D. Leach, *Ydj1 governs fungal morphogenesis and stress response, and facilitates mitochondrial protein import via Mas1 and Mas2*. Microb Cell, 2017. **4**(10): p. 342-361.

Xiong, S., A.L. Couzens, M.J. Kean, D.Y. Mao, S. Guettler, I. Kurinov, A.C. Gingras, and F. Sicheri, *Regulation of protein interactions by MOB1 phosphorylation*. Mol Cell Proteomics, 2017.

2016

Babichev, Y., L. Kabaroff, A. Datti, D. Uehling, M. Isaac, R. Al-Awar, M. Prakesch, R.X. Sun, P.C. Boutros, R. Venier, B.C. Dickson, and R.A. Gladdy, *PI3K/AKT/mTOR inhibition in combination with doxorubicin is an effective therapy for leiomyosarcoma*. J Transl Med, 2016. **14**(1): p. 67.

Billon, P., J. Li, J.P. Lambert, Y. Chen, V. Tremblay, J.S. Brunzelle, A.C. Gingras, A. Verreault, T. Sugiyama, J.F. Couture, and J. Cote, *Acetylation of PCNA Sliding Surface by Eco1 Promotes Genome Stability through Homologous Recombination*. Mol Cell, 2016.

Campbell, C.I., P. Samavarchi-Tehrani, M. Barrios-Rodiles, A. Datti, A.C. Gingras, and J.L. Wrana, *The RNF146 and tankyrase pathway maintains the junctional Crumbs complex through regulation of angiomin. J Cell Sci*, 2016. **129**(18): p. 3396-411.

Campbell, J.E., J.R. Ussher, E.E. Mulvihill, J. Kolic, L.L. Baggio, X. Cao, Y. Liu, B.J. Lamont, T. Morii, C.J. Streutker, N. Tamarina, L.H. Philipson, J.L. Wrana, P.E. MacDonald, and D.J. Drucker, *TCF1 links GIPR signaling to the control of beta cell function and survival*. Nat Med, 2016. **22**(1): p. 84-90.

Costanzo, M., B. VanderSluis, E.N. Koch, A. Baryshnikova, C. Pons, G. Tan, W. Wang, M. Usaj, J. Hanchard, S.D. Lee, V. Pelechano, E.B. Styles, M. Billmann, J. van Leeuwen, N. van Dyk, Z.Y. Lin, E. Kuzmin, J. Nelson, J.S. Piotrowski, T. Srikumar, S. Bahr, Y. Chen, R. Deshpande, C.F. Kurat, S.C. Li, Z. Li, M.M. Usaj, H. Okada, N. Pascoe, B.J. San Luis, S. Sharifpoor, E. Shuteriqi, S.W. Simpkins, J. Snider, H.G. Suresh, Y. Tan, H. Zhu, N. Malod-Dognin, V. Janjic, N. Przulj, O.G. Troyanskaya, I. Stagljar, T. Xia, Y. Ohya, A.C. Gingras, B. Raught, M. Boutros, L.M. Steinmetz, C.L. Moore, A.P. Rosebrock, A.A. Caudy, C.L. Myers, B. Andrews, and C. Boone, *A global genetic interaction network maps a wiring diagram of cellular function*. Science, 2016. **353**(6306).

de Kreuk, B.J., A.R. Gingras, J.D. Knight, J.J. Liu, A.C. Gingras, and M.H. Ginsberg, *Heart of glass anchors Rasip1 at endothelial cell-cell junctions to support vascular integrity*. Elife, 2016. **5**.

Feng, Y., A. Vlassis, C. Roques, M.E. Lalonde, C. Gonzalez-Aguilera, J.P. Lambert, S.B. Lee, X. Zhao, C. Alabert, J.V. Johansen, E. Paquet, X.J. Yang, A.C. Gingras, J. Cote, and A. Groth, *BRPF3-HBO1 regulates replication origin activation and histone H3K14 acetylation*. EMBO J, 2016. **35**(2): p. 176-92.

Goullet de Rugy, T., M. Bashkurov, A. Datti, R. Betous, L. Guitton-Sert, C. Cazaux, D. Durocher, and J.S. Hoffmann, *Excess Poltheta functions in response to replicative stress in homologous recombination-proficient cancer cells*. Biol Open, 2016.

Jacquet, K., A. Fradet-Turcotte, N. Avvakumov, J.P. Lambert, C. Roques, R.K. Pandita, E. Paquet, P. Herst, A.C. Gingras, T.K. Pandita, G. Legube, Y. Doyon, D. Durocher, and J. Cote, *The TIP60 Complex Regulates Bivalent Chromatin Recognition by 53BP1 through Direct H4K20me Binding and H2AK15 Acetylation*. Mol Cell, 2016. **62**(3): p. 409-21.

Janer, A., J. Prudent, V. Paupe, S. Fahiminiya, J. Majewski, N. Sgarioto, C. Des Rosiers, A. Forest, Z.Y. Lin, A.C. Gingras, G. Mitchell, H.M. McBride, and E.A. Shoubbridge, *SLC25A46 is required for mitochondrial lipid homeostasis and cristae maintenance and is responsible for Leigh syndrome*. EMBO Mol Med, 2016.

Jin, J., R. Tian, A. Pasculescu, A.Y. Dai, K. Williton, L. Taylor, M.M. Savitski, M. Bantscheff, J.R. Woodgett, T. Pawson, and K. Colwill, *Mutational Analysis of Glycogen Synthase Kinase 3beta Protein Kinase Together with Kinome-Wide Binding and Stability Studies Suggests Context-Dependent Recognition of Kinases by the Chaperone Heat Shock Protein 90*. Mol Cell Biol, 2016. **36**(6): p. 1007-18.

Jones, R.A., T.J. Robinson, J.C. Liu, M. Shrestha, V. Voisin, Y. Ju, P.E. Chung, G. Pellicchia, V.L. Fell, S. Bae, L. Muthuswamy, A. Datti, S.E. Egan, Z. Jiang, G. Leone, G.D. Bader, A. Schimmer, and E. Zacksenhaus, *RBI deficiency in triple-negative breast cancer induces mitochondrial protein translation*. J Clin Invest, 2016.

Kazazian, K., C.D. Go, H. Wu, O. Brashavitskaya, R.S. Xu, J.W. Dennis, A.C. Gingras, and C. Swallow, *Plk4 promotes cancer invasion and metastasis through Arp2/3 complex regulation of the actin cytoskeleton*. Cancer Res, 2016.

Liu, G., J.D. Knight, J.P. Zhang, C.C. Tsou, J. Wang, J.P. Lambert, B. Larsen, M. Tyers, B. Raught, N. Bandeira, A.I. Nesvizhskii, H. Choi, and A.C. Gingras, *Data Independent Acquisition analysis in ProHits 4.0*. J Proteomics, 2016.

Lun, X., J.C. Wells, N. Grinshtein, J.C. King, X. Hao, N.H. Dang, X. Wang, A. Aman, D. Uehling, A. Datti, J.L. Wrana, J.C. Easaw, A. Luchman, S. Weiss, J.G. Cairncross, D.R. Kaplan, S.M. Robbins, and D.L. Senger, *Disulfiram when combined with copper enhances the therapeutic effects of temozolomide for the treatment of Glioblastoma*. Clin Cancer Res, 2016.

Mohammad, D.K., B.F. Nore, M.O. Gustafsson, A.J. Mohamed, and C.I. Smith, *Protein kinase B (AKT) regulates SYK activity and shuttling through 14-3-3 and importin 7*. Int J Biochem Cell Biol, 2016. **78**: p. 63-74.

Naska, S., S.A. Yuzwa, A.P. Johnston, S. Paul, K.M. Smith, M. Paris, M.V. Sefton, A. Datti, F.D. Miller, and D.R. Kaplan, *Identification of Drugs that Regulate Dermal Stem Cells and Enhance Skin Repair*. Stem Cell Reports, 2016. **6**(1): p. 74-84.

Picaud, S., K. Leonards, J.P. Lambert, O. Dovey, C. Wells, O. Fedorov, O. Monteiro, T. Fujisawa, C.Y. Wang, H. Lingard, C. Tallant, N. Nikbin, L. Guetzoian, R. Ingham, S.V. Ley, P. Brennan, S. Muller, A. Samsonova, A.C. Gingras, J. Schwaller, G. Vassiliou, S. Knapp, and P. Filippakopoulos, *Promiscuous targeting of bromodomains by bromosporine identifies BET proteins as master regulators of primary transcription response in leukemia*. Sci Adv, 2016. **2**(10): p. e1600760.

Pupavac, M., D. Watkins, F. Petrella, S. Fahiminiya, A. Janer, W. Cheung, A.C. Gingras, T. Pastinen, J. Muenzer, J. Majewski, E.A. Shoubridge, and D.S. Rosenblatt, *Inborn Error of Cobalamin Metabolism Associated with the Intracellular Accumulation of Transcobalamin-Bound Cobalamin and Mutations in ZNF143, Which Codes for a Transcriptional Activator*. Hum Mutat, 2016.

Reginensi, A., L. Enderle, A. Gregorieff, R.L. Johnson, J.L. Wrana, and H. McNeill, *A critical role for NF2 and the Hippo pathway in branching morphogenesis*. Nat Commun, 2016. **7**: p. 12309.

Rotin, L.E., N. MacLean, A. Aman, M. Gronda, F.H. Lin, R. Hurren, X. Wang, J.L. Wrana, A. Datti, R. Al-Awar, M.D. Minden, and A.D. Schimmer, *Erlotinib synergizes with the poly(ADP-ribose) glycohydrolase inhibitor ethacridine in acute myeloid leukemia cells*. Haematologica, 2016.

Savitsky, P., T. Krojer, T. Fujisawa, J.P. Lambert, S. Picaud, C.Y. Wang, E.K. Shanle, K. Krajewski, H. Friedrichsen, A. Kanapin, C. Goding, M. Schapira, A. Samsonova, B.D. Strahl, A.C. Gingras, and P. Filippakopoulos, *Multivalent Histone and DNA Engagement by a*

PHD/BRD/PWWP Triple Reader Cassette Recruits ZMYND8 to K14ac-Rich Chromatin. Cell Rep, 2016. **17**(10): p. 2724-2737.

Shekhar-Guturja, T., G.M. Gunaherath, E.M. Wijeratne, J.P. Lambert, A.F. Averette, S.C. Lee, T. Kim, Y.S. Bahn, F. Tripodi, R. Ammar, K. Dohl, K. Niewola-Staszewska, L. Schmitt, R.J. Loewith, F.P. Roth, D. Sanglard, D. Andes, C. Nislow, P. Coccetti, A.C. Gingras, J. Heitman, A.A. Gunatilaka, and L.E. Cowen, *Dual action antifungal small molecule modulates multidrug efflux and TOR signaling*. Nat Chem Biol, 2016. **12**(10): p. 867-75.

St-Denis, N., G.D. Gupta, Z.Y. Lin, B. Gonzalez-Badillo, A.O. Veri, J.D. Knight, D. Rajendran, A.L. Couzens, K.W. Currie, J.M. Tkach, S.W. Cheung, L. Pelletier, and A.C. Gingras, *Phenotypic and Interaction Profiling of the Human Phosphatases Identifies Diverse Mitotic Regulators*. Cell Rep, 2016. **17**(9): p. 2488-2501.

Strecker, J., G.D. Gupta, W. Zhang, M. Bashkurov, M.C. Landry, L. Pelletier, and D. Durocher, *DNA damage signalling targets the kinetochore to promote chromatin mobility*. Nat Cell Biol, 2016. **18**(3): p. 281-90.

Teo, G., H. Koh, D. Fermin, J.P. Lambert, J.D. Knight, A.C. Gingras, and H. Choi, *SAINTq: scoring protein-protein interactions in affinity purification - mass spectrometry experiments with fragment or peptide intensity data*. Proteomics, 2016.

Tkac, J., G. Xu, H. Adhikary, J.T. Young, D. Gallo, C. Escribano-Diaz, J. Krietsch, A. Orthwein, M. Munro, W. Sol, A. Al-Hakim, Z.Y. Lin, J. Jonkers, P. Borst, G.W. Brown, A.C. Gingras, S. Rottenberg, J.Y. Masson, and D. Durocher, *HELB Is a Feedback Inhibitor of DNA End Resection*. Mol Cell, 2016.

Uuskula-Reimand, L., H. Hou, P. Samavarchi-Tehrani, M.V. Rudan, M. Liang, A. Medina-Rivera, H. Mohammed, D. Schmidt, P. Schwalie, E.J. Young, J. Reimand, S. Hadjur, A.C. Gingras, and M.D. Wilson, *Topoisomerase II beta interacts with cohesin and CTCF at topological domain borders*. Genome Biol, 2016. **17**(1): p. 182.

Wan, L.C., P. Maisonneuve, R.K. Szilard, J.P. Lambert, T.F. Ng, N. Manczyk, H. Huang, R. Laister, A.A. Caudy, A.C. Gingras, D. Durocher, and F. Sicheri, *Proteomic analysis of the human KEOPS complex identifies C14ORF142 as a core subunit homologous to yeast Gon7*. Nucleic Acids Res, 2016.

Wang, S., J.C. Liu, D. Kim, A. Datti, and E. Zacksenhaus, *Targeted Pten deletion plus p53-R270H mutation in mouse mammary epithelium induces aggressive claudin-low and basal-like breast cancer*. Breast Cancer Res, 2016. **18**(1): p. 9.

Zhang, L., V. Luga, S.K. Armitage, M. Musiol, A. Won, C.M. Yip, S.V. Plotnikov, and J.L. Wrana, *A lateral signalling pathway coordinates shape volatility during cell migration*. Nat Commun, 2016. **7**: p. 11714.

Zhang, L., Z. Yang, L. Granieri, A. Pasculescu, A. Datti, S.L. Asa, Z. Xu, and S. Ezzat, *High-throughput drug library screening identifies colchicine as a thyroid cancer inhibitor*. Oncotarget, 2016.

2015

Abraham, S., M. Scarcia, R.D. Bagshaw, K. McMahon, G. Grant, T. Harvey, M. Yeo, F.O. Esteves, H.H. Thygesen, P.F. Jones, V. Speirs, A.M. Hanby, P.J. Selby, M. Lorget, T.N. Dear, T. Pawson, C.J. Marshall, and G. Mavria, *A Rac/Cdc42 exchange factor complex promotes formation of lateral filopodia and blood vessel lumen morphogenesis*. Nat Commun, 2015. **6**: p. 7286.

Antoncjak, A.K., L.I. Mullee, Y. Wang, D. Comartin, T. Inoue, L. Pelletier, and C.G. Morrison, *Opposing effects of pericentrin and microcephalin on the pericentriolar material regulate CHK1 activation in the DNA damage response*. Oncogene, 2015.

Bernard, D., M. Gebbia, S. Prabha, M. Gronda, N. MacLean, X. Wang, R. Hurren, M.A. Sukhai, E.E. Cho, M.F. Manolson, A. Datti, J. Wrana, M.D. Minden, R. Al-Awar, A. Aman, C. Nislow, G. Giaever, and A.D. Schimmer, *Select microtubule inhibitors increase lysosome acidity and promote lysosomal disruption in acute myeloid leukemia (AML) cells*. Apoptosis, 2015. **20**(7): p. 948-59.

Coyaud, E., M. Mis, E.M. Laurent, W.H. Dunham, A.L. Couzens, M. Robitaille, A.C. Gingras, S. Angers, and B. Raught, *BioID-based Identification of Skp Cullin F-box (SCF) β -TrCP1/2 E3 Ligase Substrates*. Mol Cell Proteomics, 2015. **14**(7): p. 1781-95.

Giampietro, C., A. Disanza, L. Bravi, M. Barrios-Rodiles, M. Corada, E. Frittoli, C. Savorani, M.G. Lampugnani, B. Boggetti, C. Niessen, J.L. Wrana, G. Scita, and E. Dejana, *The actin-binding protein EPS8 binds VE-cadherin and modulates YAP localization and signaling*. J Cell Biol, 2015. **211**(6): p. 1177-92.

Gregorieff, A., Y. Liu, M.R. Inanlou, Y. Khomchuk, and J.L. Wrana, *Yap-dependent reprogramming of Lgr5(+) stem cells drives intestinal regeneration and cancer*. Nature, 2015. **526**(7575): p. 715-8.

Gupta, G.D., E. Coyaud, J. Goncalves, B.A. Mojarad, Y. Liu, Q. Wu, L. Gheiratmand, D. Comartin, J.M. Tkach, S.W. Cheung, M. Bashkurov, M. Hasegan, J.D. Knight, Z.Y. Lin, M. Schueler, F. Hildebrandt, J. Moffat, A.C. Gingras, B. Raught, and L. Pelletier, *A Dynamic Protein Interaction Landscape of the Human Centrosome-Cilium Interface*. Cell, 2015. **163**(6): p. 1484-99.

Heng, Y.J., L. Taylor, B.G. Larsen, H.N. Chua, S.M. Pung, M.W. Lee, M. Tucholska, S. Tate, P. Kupchak, C.E. Pennell, T. Pawson, and S.J. Lye, *Albumin Decrease Is Associated with Spontaneous Preterm Delivery within 48 h in Women with Threatened Preterm Labor*. J Proteome Res, 2015. **14**(1): p. 457-66.

Hirsch, C.L., Z. Coban Akdemir, L. Wang, G. Jayakumaran, D. Trcka, A. Weiss, J.J. Hernandez, Q. Pan, H. Han, X. Xu, Z. Xia, A.P. Salinger, M. Wilson, F. Vizeacoumar, A. Datti, W. Li, A.J. Cooney, M.C. Barton, B.J. Blencowe, J.L. Wrana, and S.Y. Dent, *Myc and SAGA rewire an alternative splicing network during early somatic cell reprogramming*. Genes Dev, 2015. **29**(8): p. 803-16.

Knight, J.D., G. Liu, J.P. Zhang, A. Pasculescu, H. Choi, and A.C. Gingras, *A web-tool for visualizing quantitative protein-protein interaction data*. Proteomics, 2015. **15**(8): p. 1432-6.

Koehler, J.A., L.L. Baggio, X. Cao, T. Abdulla, J.E. Campbell, T. Secher, J. Jelsing, B. Larsen, and D.J. Drucker, *Glucagon-like Peptide-1 receptor agonists increase pancreatic mass by induction of protein synthesis*. Diabetes, 2015. **64**(3): p. 1046-56.

Lambert, J.P., M. Tucholska, C. Go, J.D. Knight, and A.C. Gingras, *Proximity biotinylation and affinity purification are complementary approaches for the interactome mapping of chromatin-associated protein complexes*. J Proteomics, 2015. **118**: p. 81-94.

Lant, B., B. Yu, M. Goudreault, D. Holmyard, J.D. Knight, P. Xu, L. Zhao, K. Chin, E. Wallace, M. Zhen, A.C. Gingras, and W.B. Derry, *CCM-3/STRIPAK promotes seamless tube extension through endocytic recycling*. Nat Commun, 2015. **6**: p. 6449.

Lee, E.A., L. Angka, S.G. Rota, T. Hanlon, A. Mitchell, R. Hurren, X.M. Wang, M. Gronda, E. Boyaci, B. Bojko, M. Minden, S. Sriskanthadevan, A. Datti, J.L. Wrana, A. Edginton, J. Pawliszyn, J.W. Joseph, J. Quadrilatero, A.D. Schimmer, and P.A. Spagnuolo, *Targeting Mitochondria with Avocatin B Induces Selective Leukemia Cell Death*. Cancer Res, 2015. **75**(12): p. 2478-88.

Marcon, E., H. Jain, A. Bhattacharya, H. Guo, S. Phanse, S. Pu, G. Byram, B.C. Collins, E. Dowdell, M. Fenner, X. Guo, A. Hutchinson, J.J. Kennedy, B. Krastins, B. Larsen, Z.Y. Lin, M.F. Lopez, P. Loppnau, S. Miersch, T. Nguyen, J.B. Olsen, M. Paduch, M. Ravichandran, A. Seitova, G. Vadali, M.S. Vogelsang, J.R. Whiteaker, G. Zhong, N. Zhong, L. Zhao, R. Aebersold, C.H. Arrowsmith, A. Emili, L. Frappier, A.C. Gingras, M. Gstaiger, A.G. Paulovich, S. Koide, A.A. Kossiakoff, S.S. Sidhu, S.J. Wodak, S. Graslund, J.F. Greenblatt, and A.M. Edwards, *Assessment of a method to characterize antibody selectivity and specificity for use in immunoprecipitation*. Nat Methods, 2015. **12**(8): p. 725-31.

Mui, M.Z., Y. Zhou, P. Blanchette, N. Chughtai, J.F. Knight, T. Gruosso, A.I. Papadakis, S. Huang, M. Park, A.C. Gingras, and P.E. Branton, *The Human Adenovirus Type 5 E4orf4 Protein Targets Two Phosphatase Regulators of the Hippo Signaling Pathway*. J Virol, 2015. **89**(17): p. 8855-70.

Nie, J., C. Xu, J. Jin, J.A. Aka, W. Tempel, V. Nguyen, L. You, R. Weist, J. Min, T. Pawson, and X.J. Yang, *Ankyrin Repeats of ANKRA2 Recognize a PxLPxL Motif on the 3M Syndrome Protein CCDC8*. Structure, 2015.

Nishimura, T., Z. Padamsi, H. Fakim, S. Milette, W.H. Dunham, A.C. Gingras, and M.R. Fabian, *The eIF4E-Binding Protein 4E-T Is a Component of the mRNA Decay Machinery that Bridges the 5' and 3' Termini of Target mRNAs*. Cell Rep, 2015. **11**(9): p. 1425-36.

Orthwein, A., S.M. Noordermeer, M.D. Wilson, S. Landry, R.I. Enchev, A. Sherker, M. Munro, J. Pinder, J. Salsman, G. Dellaire, B. Xia, M. Peter, and D. Durocher, *A mechanism for the suppression of homologous recombination in G1 cells*. Nature, 2015. **528**(7582): p. 422-6.

Prosser, S.L., N.K. Sahota, L. Pelletier, C.G. Morrison, and A.M. Fry, *Nek5 promotes centrosome integrity in interphase and loss of centrosome cohesion in mitosis*. J Cell Biol, 2015. **209**(3): p. 339-48.

Rosario, C.O., K. Kazazian, F.S. Zih, O. Brashavitskaya, Y. Haffani, R.S. Xu, A. George, J.W. Dennis, and C.J. Swallow, *A novel role for Plk4 in regulating cell spreading and motility*. Oncogene, 2015. **34**(26): p. 3441-51.

Rotin, L.E., M. Gronda, N. MacLean, R. Hurren, X. Wang, F.H. Lin, J. Wrana, A. Datti, D.L. Barber, M.D. Minden, M. Slassi, and A.D. Schimmer, *Ibrutinib synergizes with poly(ADP-ribose) glycohydrolase inhibitors to induce cell death in AML cells via a BTK-independent mechanism*. Oncotarget, 2015.

Scifo, E., A. Szwajda, R. Soliymani, F. Pezzini, M. Bianchi, A. Dapkunas, J. Debski, K. Uusi-Rauva, M. Dadlez, A.C. Gingras, J. Tyynela, A. Simonati, A. Jalanko, M.H. Baumann, and M. Lalowski, *Proteomic analysis of the palmitoyl protein thioesterase 1 interactome in SH-SY5Y human neuroblastoma cells*. J Proteomics, 2015. **123**: p. 42-53.

Scifo, E., A. Szwajda, R. Soliymani, F. Pezzini, M. Bianchi, A. Dapkunas, J. Debski, K. Uusi-Rauva, M. Dadlez, A.C. Gingras, J. Tyynela, A. Simonati, A. Jalanko, M.H. Baumann, and M. Lalowski, *Quantitative analysis of PPT1 interactome in human neuroblastoma cells*. Data Brief, 2015. **4**: p. 207-16.

Shnitsar, I., M. Bashkurov, G.R. Masson, A.A. Ogunjimi, S. Mosessian, E.A. Cabeza, C.L. Hirsch, D. Trcka, G. Gish, J. Jiao, H. Wu, R. Winklbauer, R.L. Williams, L. Pelletier, J.L. Wrana, and M. Barrios-Rodiles, *PTEN regulates cilia through Dishevelled*. Nat Commun, 2015. **6**: p. 8388.

So, J., A. Pasculescu, A.Y. Dai, K. Williton, A. James, V. Nguyen, P. Creixell, E.M. Schoof, J. Sinclair, M. Barrios-Rodiles, J. Gu, A. Krizus, R. Williams, M. Olhovsky, J.W. Dennis, J.L. Wrana, R. Linding, C. Jorgensen, T. Pawson, and K. Colwill, *Integrative analysis of kinase networks in TRAIL-induced apoptosis provides a source of potential targets for combination therapy*. Sci Signal, 2015. **8**(371): p. rs3.

Srivastava, G., A. Matta, G. Fu, R.T. Somasundaram, A. Datti, P.G. Walfish, and R. Ralhan, *Anticancer activity of pyrithione zinc in oral cancer cells identified in small molecule screens and xenograft model: Implications for oral cancer therapy*. Mol Oncol, 2015. **9**(8): p. 1720-35.

St-Denis, N., G.D. Gupta, Z.Y. Lin, B. Gonzalez-Badillo, L. Pelletier, and A.C. Gingras, *Myotubularin-related Proteins 3 and 4 Interact with Polo-like Kinase 1 and Centrosomal Protein of 55 kDa to Ensure Proper Abscission*. Mol Cell Proteomics, 2015. **14**(4): p. 946-60.

Teo, G., S. Kim, C.C. Tsou, B. Collins, A.C. Gingras, A.I. Nesvizhskii, and H. Choi, *mapDIA: Preprocessing and statistical analysis of quantitative proteomics data from data independent acquisition mass spectrometry*. J Proteomics, 2015. **129**: p. 108-20.

Tian, R., H. Wang, G.D. Gish, E. Petsalaki, A. Pasculescu, Y. Shi, M. Mollenauer, R.D. Bagshaw, N. Yosef, T. Hunter, A.C. Gingras, A. Weiss, and T. Pawson, *Combinatorial proteomic analysis of intercellular signaling applied to the CD28 T-cell costimulatory receptor*. Proc Natl Acad Sci U S A, 2015. **112**(13): p. E1594-603.

Tsou, C.C., D. Avtonomov, B. Larsen, M. Tucholska, H. Choi, A.C. Gingras, and A.I. Nesvizhskii, *DIA-Umpire: comprehensive computational framework for data-independent acquisition proteomics*. Nat Methods, 2015. **12**(3): p. 258-264.

Wang, J., M. Tucholska, J.D. Knight, J.P. Lambert, S. Tate, B. Larsen, A.C. Gingras, and N. Bandeira, *MSPLIT-DIA: sensitive peptide identification for data-independent acquisition*. Nat Methods, 2015. **12**(12): p. 1106-8.

Yeh, C., E. Coyaud, M. Bashkurov, P. van der Lelij, S.W. Cheung, J.M. Peters, B. Raught, and L. Pelletier, *The Deubiquitinase USP37 Regulates Chromosome Cohesion and Mitotic Progression*. Curr Biol, 2015. **25**(17): p. 2290-9.

Zeqiraj, E., L. Tian, C.A. Piggott, M.C. Pillon, N.M. Duffy, D.F. Ceccarelli, A.F. Keszei, K. Lorenzen, I. Kurinov, S. Orlicky, G.D. Gish, A.J. Heck, A. Guarne, R.A. Greenberg, and F. Sicheri, *Higher-Order Assembly of BRCC36-KIAA0157 Is Required for DUB Activity and Biological Function*. Mol Cell, 2015. **59**(6): p. 970-83.

2014

Barsyte-Lovejoy, D., F. Li, M.J. Oudhoff, J.H. Tatlock, A. Dong, H. Zeng, H. Wu, S.A. Freeman, M. Schapira, G.A. Senisterra, E. Kuznetsova, R. Marcellus, A. Allali-Hassani, S. Kennedy, J.P. Lambert, A.L. Couzens, A. Aman, A.C. Gingras, R. Al-Awar, P.V. Fish, B.S. Gerstenberger, L. Roberts, C.L. Benn, R.L. Grimley, M.J. Braam, F.M. Rossi, M. Sudol, P.J. Brown, M.E. Bunnage, D.R. Owen, C. Zaph, M. Vedadi, and C.H. Arrowsmith, *(R)-PFI-2 is a potent and selective inhibitor of SETD7 methyltransferase activity in cells*. Proc Natl Acad Sci U S A, 2014. **111**(35): p. 12853-8.

Gray, E.J., E. Petsalaki, D.A. James, R.D. Bagshaw, M.M. Stacey, O. Rocks, A.C. Gingras, and T. Pawson, *Src homology 2 domain containing protein 5 (SH2D5) binds the breakpoint cluster region protein, BCR, and regulates levels of Rac1-GTP*. J Biol Chem, 2014. **289**(51): p. 35397-408.

Jeon, J., S. Nim, J. Teyra, A. Datti, J.L. Wrana, S.S. Sidhu, J. Moffat, and P.M. Kim, *A systematic approach to identify novel cancer drug targets using machine learning, inhibitor design and high-throughput screening*. Genome Med, 2014. **6**(7): p. 57.

Jovic, M., M.J. Kean, A. Dubankova, E. Boura, A.C. Gingras, J.A. Brill, and T. Balla, *Endosomal sorting of VAMP3 is regulated by PI4K2A*. J Cell Sci, 2014. **127**(Pt 17): p. 3745-56.

Kittanakom, S., M. Barrios-Rodiles, J. Petschnigg, A. Arnoldo, V. Wong, M. Kotlyar, L.E. Heisler, I. Jurisica, J.L. Wrana, C. Nislow, and I. Stagljar, *CHIP-MYTH: a novel interactive proteomics method for the assessment of agonist-dependent interactions of the human beta(2)-adrenergic receptor*. Biochem Biophys Res Commun, 2014. **445**(4): p. 746-56.

Kurat, C.F., J.P. Lambert, J. Petschnigg, H. Friesen, T. Pawson, A. Rosebrock, A.C. Gingras, J. Fillingham, and B. Andrews, *Cell cycle-regulated oscillator coordinates core histone gene transcription through histone acetylation*. Proc Natl Acad Sci U S A, 2014. **111**(39): p. 14124-9.

Lambert, J.P., M. Tucholska, T. Pawson, and A.C. Gingras, *Incorporating DNA shearing in standard affinity purification allows simultaneous identification of both soluble and chromatin-bound interaction partners*. J Proteomics, 2014. **100**: p. 55-9.

Liu, J.C., V. Voisin, S. Wang, D.Y. Wang, R.A. Jones, A. Datti, D. Uehling, R. Al-awar, S.E. Egan, G.D. Bader, M. Tsao, T.W. Mak, and E. Zacksenhaus, *Combined deletion of Pten and p53 in mammary epithelium accelerates triple-negative breast cancer with dependency on eEF2K*. EMBO Mol Med, 2014. **6**(12): p. 1542-60.

Liu, Y., A.P. Noon, E. Aguiar Cabeza, J. Shen, C. Kuk, C. Ilczynski, R. Ni, B. Sukhu, K. Chan, N.L. Barbosa-Morais, T. Hermanns, B.J. Blencowe, A. Azad, T.H. van der Kwast, J.W. Catto, A.R. Zlotta, and J.L. Wrana, *Next-generation RNA Sequencing of Archival Formalin-fixed Paraffin-embedded Urothelial Bladder Cancer*. Eur Urol, 2014.

Liu, Y.C., A.L. Couzens, A.R. Deshwar, B.M.-C. LD, X. Zhang, V. Puviindran, I.C. Scott, A.C. Gingras, C.C. Hui, and S. Angers, *The PPFLA1-PP2A protein complex promotes trafficking of Kif7 to the ciliary tip and Hedgehog signaling*. Sci Signal, 2014. **7**(355): p. ra117.

Meiri, D., C.B. Marshall, D. Mokady, J. LaRose, M. Mullin, A.C. Gingras, M. Ikura, and R. Rottapel, *Mechanistic insight into GPCR-mediated activation of the microtubule-associated RhoA exchange factor GEF-H1*. Nat Commun, 2014. **5**: p. 4857.

O'Neill, D.J., S.C. Williamson, D. Alkharaif, I.C. Monteiro, M. Goudreault, L. Gaughan, C.N. Robson, A.C. Gingras, and O. Binda, *SETD6 controls the expression of estrogen-responsive genes and proliferation of breast carcinoma cells*. Epigenetics, 2014. **9**(7): p. 942-50.

Orthwein, A., A. Fradet-Turcotte, S.M. Noordermeer, M.D. Canny, C.M. Brun, J. Strecker, C. Escribano-Diaz, and D. Durocher, *Mitosis inhibits DNA double-strand break repair to guard against telomere fusions*. Science, 2014. **344**(6180): p. 189-93.

Pasulescu, A., E.M. Schoof, P. Creixell, Y. Zheng, M. Olhovsky, R. Tian, J. So, R.D. Vanderlaan, T. Pawson, R. Linding, and K. Colwill, *CoreFlow: A computational platform for integration, analysis and modeling of complex biological data*. Journal of proteomics, 2014. **100**: p. 167-73.

Raj, B., M. Irimia, U. Braunschweig, T. Sterne-Weiler, D. O'Hanlon, Z.Y. Lin, G.I. Chen, L.E. Easton, J. Ule, A.C. Gingras, E. Eyra, and B.J. Blencowe, *A global regulatory mechanism for activating an exon network required for neurogenesis*. Mol Cell, 2014. **56**(1): p. 90-103.

Sakamaki, J., A. Fu, C. Reeks, S. Baird, C. Depatie, M. Al Azzabi, N. Bardeesy, A.C. Gingras, S.P. Yee, and R.A. Screaton, *Role of the SIK2-p35-PJA2 complex in pancreatic beta-cell functional compensation*. Nat Cell Biol, 2014. **16**(3): p. 234-44.

Soliman, M.A., A.M. Abdel Rahman, D.W. Lamming, K. Birsoy, J. Pawling, M.E. Frigolet, H. Lu, I.G. Fantus, A. Pasulescu, Y. Zheng, D.M. Sabatini, J.W. Dennis, and T. Pawson, *The adaptor protein p66Shc inhibits mTOR-dependent anabolic metabolism*. Sci Signal, 2014. **7**(313): p. ra17.

Suzuki, H., T.V. Vuong, Y. Gong, K. Chan, C.Y. Ho, E.R. Master, and A. Kondo, *Sequence diversity and gene expression analyses of expansin-related proteins in the white-rot basidiomycete, Phanerochaete carnosae*. Fungal Genet Biol, 2014. **72**: p. 115-123.

Taipale, M., G. Tucker, J. Peng, I. Krykbaeva, Z.Y. Lin, B. Larsen, H. Choi, B. Berger, A.C. Gingras, and S. Lindquist, *A quantitative chaperone interaction network reveals the architecture of cellular protein homeostasis pathways*. Cell, 2014. **158**(2): p. 434-48.

Teo, G., G. Liu, J. Zhang, A.I. Nesvizhskii, A.C. Gingras, and H. Choi, *SAINTexpress: improvements and additional features in Significance Analysis of INTERactome software*. J Proteomics, 2014. **100**: p. 37-43.

Xu, G., M. Barrios-Rodiles, M. Jerkic, A.L. Turinsky, R. Nadon, S. Vera, D. Voulgaraki, J.L. Wrana, M. Toporsian, and M. Letarte, *Novel protein interactions with endoglin and activin receptor-like kinase 1: potential role in vascular networks*. Mol Cell Proteomics, 2014. **13**(2): p. 489-502.

Yasui, N., G.M. Findlay, G.D. Gish, M.S. Hsiung, J. Huang, M. Tucholska, L. Taylor, L. Smith, W.C. Boldridge, A. Koide, T. Pawson, and S. Koide, *Directed network wiring identifies a key protein interaction in embryonic stem cell differentiation*. Mol Cell, 2014. **54**(6): p. 1034-41.

2013

Beyer, T.A., A. Weiss, Y. Khomchuk, K. Huang, A.A. Ogunjimi, X. Varelas, and J.L. Wrana, *Switch enhancers interpret TGF-beta and Hippo signaling to control cell fate in human embryonic stem cells*. Cell Rep, 2013. **5**(6): p. 1611-24.

Comartin, D., G.D. Gupta, E. Fussner, E. Coyaud, M. Hasegan, M. Archinti, S.W. Cheung, D. Pinchev, S. Lawo, B. Raught, D.P. Bazett-Jones, J. Luders, and L. Pelletier, *CEP120 and SPICE1 cooperate with CPAP in centriole elongation*. Curr Biol, 2013. **23**(14): p. 1360-6.

Couzens, A.L., J.D. Knight, M.J. Kean, G. Teo, A. Weiss, W.H. Dunham, Z.Y. Lin, R.D. Bagshaw, F. Sicheri, T. Pawson, J.L. Wrana, H. Choi, and A.C. Gingras, *Protein interaction network of the mammalian Hippo pathway reveals mechanisms of kinase-phosphatase interactions*. Sci Signal, 2013. **6**(302): p. rs15.

Crasto, G.J., N. Kartner, Y. Yao, K. Li, L. Bullock, A. Datti, and M.F. Manolson, *Luteolin inhibition of V-ATPase $\alpha 3$ - $\beta 2$ interaction decreases osteoclast resorptive activity*. J Cell Biochem, 2013. **114**(4): p. 929-41.

Ernst, A., G. Avvakumov, J. Tong, Y. Fan, Y. Zhao, P. Alberts, A. Persaud, J.R. Walker, A.M. Neculai, D. Neculai, A. Vorobyov, P. Garg, L. Beatty, P.K. Chan, Y.C. Juang, M.C. Landry, C. Yeh, E. Zehiraj, K. Karamboulas, A. Allali-Hassani, M. Vedadi, M. Tyers, J. Moffat, F. Sicheri, L. Pelletier, D. Durocher, B. Raught, D. Rotin, J. Yang, M.F. Moran, S. Dhe-Paganon, and S.S. Sidhu, *A strategy for modulation of enzymes in the ubiquitin system*. Science, 2013. **339**(6119): p. 590-5.

Escribano-Diaz, C., A. Orthwein, A. Fradet-Turcotte, M. Xing, J.T. Young, J. Tkac, M.A. Cook, A.P. Rosebrock, M. Munro, M.D. Canny, D. Xu, and D. Durocher, *A cell cycle-dependent regulatory circuit composed of 53BP1-RIF1 and BRCA1-CtIP controls DNA repair pathway choice*. Mol Cell, 2013. **49**(5): p. 872-83.

Fermin, D., S.J. Walmsley, A.C. Gingras, H. Choi, and A.I. Nesvizhskii, *LuciPHOr: algorithm for phosphorylation site localization with false localization rate estimation using modified target-decoy approach*. Mol Cell Proteomics, 2013. **12**(11): p. 3409-19.

Findlay, G.M., M.J. Smith, F. Lanner, M.S. Hsiung, G.D. Gish, E. Petsalaki, K. Cockburn, T. Kaneko, H. Huang, R.D. Bagshaw, T. Ketela, M. Tucholska, L. Taylor, D.D. Bowtell, J. Moffat, M. Ikura, S.S. Li, S.S. Sidhu, J. Rossant, and T. Pawson, *Interaction domains of Sos1/Grb2 are finely tuned for cooperative control of embryonic stem cell fate*. Cell, 2013. **152**(5): p. 1008-20.

Garg, J., J.P. Lambert, A. Karsou, S. Marquez, S. Nabeel-Shah, V. Bertucci, D.V. Retnasothie, E. Radovani, T. Pawson, A.C. Gingras, R.E. Pearlman, and J.S. Fillingham, *Conserved Asf1-importin beta physical interaction in growth and sexual development in the ciliate Tetrahymena thermophila*. J Proteomics, 2013. **94**: p. 311-26.

Goswami, R.S., E.G. Atenafu, Y. Xuan, L. Waldron, P.P. Reis, T. Sun, A. Datti, W. Xu, J. Kuruvilla, D.J. Good, R. Lai, A.J. Church, W.S. Lam, T. Baetz, D.P. Lebrun, L.H. Sehn, P. Farinha, I. Jurisica, D.J. Bailey, R.D. Gascoyne, M. Crump, and S. Kamel-Reid, *MicroRNA signature obtained from the comparison of aggressive with indolent non-Hodgkin lymphomas: potential prognostic value in mantle-cell lymphoma*. J Clin Oncol, 2013. **31**(23): p. 2903-11.

Han, H., M. Irimia, P.J. Ross, H.K. Sung, B. Alipanahi, L. David, A. Golipour, M. Gabut, I.P. Michael, E.N. Nachman, E. Wang, D. Trcka, T. Thompson, D. O'Hanlon, V. Slobodeniuc, N.L. Barbosa-Morais, C.B. Burge, J. Moffat, B.J. Frey, A. Nagy, J. Ellis, J.L. Wrana, and B.J.

Blencowe, *MBNL proteins repress ES-cell-specific alternative splicing and reprogramming*. Nature, 2013. **498**(7453): p. 241-5.

Izrailit, J., H.K. Berman, A. Datti, J.L. Wrana, and M. Reedijk, *High throughput kinase inhibitor screens reveal TRB3 and MAPK-ERK/TGFbeta pathways as fundamental Notch regulators in breast cancer*. Proc Natl Acad Sci U S A, 2013. **110**(5): p. 1714-9.

Lambert, J.P., G. Ivosev, A.L. Couzens, B. Larsen, M. Taipale, Z.Y. Lin, Q. Zhong, S. Lindquist, M. Vidal, R. Aebersold, T. Pawson, R. Bonner, S. Tate, and A.C. Gingras, *Mapping differential interactomes by affinity purification coupled with data-independent mass spectrometry acquisition*. Nat Methods, 2013. **10**(12): p. 1239-45.

Louria-Hayon, I., C. Frelin, J. Ruston, G. Gish, J. Jin, M.M. Kofler, J.P. Lambert, H.A. Adissu, M. Milyavsky, R. Herrington, M.D. Minden, J.E. Dick, A.C. Gingras, N.N. Iscove, and T. Pawson, *Lnk adaptor suppresses radiation resistance and radiation-induced B-cell malignancies by inhibiting IL-11 signaling*. Proc Natl Acad Sci U S A, 2013. **110**(51): p. 20599-604.

Mellacheruvu, D., Z. Wright, A.L. Couzens, J.P. Lambert, N.A. St-Denis, T. Li, Y.V. Miteva, S. Hauri, M.E. Sardi, T.Y. Low, V.A. Halim, R.D. Bagshaw, N.C. Hubner, A. Al-Hakim, A. Bouchard, D. Faubert, D. Fermin, W.H. Dunham, M. Goudreault, Z.Y. Lin, B.G. Badillo, T. Pawson, D. Durocher, B. Coulombe, R. Aebersold, G. Superti-Furga, J. Colinge, A.J. Heck, H. Choi, M. Gstaiger, S. Mohammed, I.M. Cristea, K.L. Bennett, M.P. Washburn, B. Raught, R.M. Ewing, A.C. Gingras, and A.I. Nesvizhskii, *The CRAPome: a contaminant repository for affinity purification-mass spectrometry data*. Nat Methods, 2013. **10**(8): p. 730-6.

Oudhoff, M.J., S.A. Freeman, A.L. Couzens, F. Antignano, E. Kuznetsova, P.H. Min, J.P. Northrop, B. Lehnertz, D. Barsyte-Lovejoy, M. Vedadi, C.H. Arrowsmith, H. Nishina, M.R. Gold, F.M. Rossi, A.C. Gingras, and C. Zaph, *Control of the hippo pathway by Set7-dependent methylation of Yap*. Dev Cell, 2013. **26**(2): p. 188-94.

Rivkin, E., S.M. Almeida, D.F. Ceccarelli, Y.C. Juang, T.A. MacLean, T. Srikumar, H. Huang, W.H. Dunham, R. Fukumura, G. Xie, Y. Gondo, B. Raught, A.C. Gingras, F. Sicheri, and S.P. Cordes, *The linear ubiquitin-specific deubiquitinase gumby regulates angiogenesis*. Nature, 2013. **498**(7454): p. 318-24.

Robinson, T.J., J.C. Liu, F. Vizeacoumar, T. Sun, N. Maclean, S.E. Egan, A.D. Schimmer, A. Datti, and E. Zacksenhaus, *RB1 status in triple negative breast cancer cells dictates response to radiation treatment and selective therapeutic drugs*. PLoS One, 2013. **8**(11): p. e78641.

Robinson, T.J., M. Pai, J.C. Liu, F. Vizeacoumar, T. Sun, S.E. Egan, A. Datti, J. Huang, and E. Zacksenhaus, *High-throughput screen identifies disulfiram as a potential therapeutic for triple-negative breast cancer cells: interaction with IQ motif-containing factors*. Cell Cycle, 2013. **12**(18): p. 3013-24.

Spagnuolo, P.A., R. Hurren, M. Gronda, N. MacLean, A. Datti, A. Basheer, F.H. Lin, X. Wang, J. Wrana, and A.D. Schimmer, *Inhibition of intracellular dipeptidyl peptidases 8 and 9 enhances parthenolide's anti-leukemic activity*. Leukemia, 2013. **27**(6): p. 1236-44.

Sukhai, M.A., S. Prabha, R. Hurren, A.C. Rutledge, A.Y. Lee, S. Sriskanthadevan, H. Sun, X. Wang, M. Skrtic, A. Seneviratne, M. Cusimano, B. Jhas, M. Gronda, N. MacLean, E.E. Cho, P.A. Spagnuolo, S. Sharmeen, M. Gebbia, M. Urbanus, K. Eppert, D. Dissanayake, A. Jonet, A. Dassonville-Klimpt, X. Li, A. Datti, P.S. Ohashi, J. Wrana, I. Rogers, P. Sonnet, W.Y. Ellis, S.J. Corey, C. Eaves, M.D. Minden, J.C. Wang, J.E. Dick, C. Nislow, G. Giaever, and A.D. Schimmer, *Lysosomal disruption preferentially targets acute myeloid leukemia cells and progenitors*. J Clin Invest, 2013. **123**(1): p. 315-28.

Tian, R., J. Jin, L. Taylor, B. Larsen, S.E. Quaggin, and T. Pawson, *Rapid and sensitive MRM-based mass spectrometry approach for systematically exploring ganglioside-protein interactions*. Proteomics, 2013. **13**(8): p. 1334-8.

Vizeacoumar, F.J., R. Arnold, F.S. Vizeacoumar, M. Chandrashekhar, A. Buzina, J.T. Young, J.H. Kwan, A. Sayad, P. Mero, S. Lawo, H. Tanaka, K.R. Brown, A. Baryshnikova, A.B. Mak, Y. Fedyshyn, Y. Wang, G.C. Brito, D. Kasimer, T. Makhnevych, T. Ketela, A. Datti, M. Babu, A. Emili, L. Pelletier, J. Wrana, Z. Wainberg, P.M. Kim, R. Rottapel, C.A. O'Brien, B. Andrews, C. Boone, and J. Moffat, *A negative genetic interaction map in isogenic cancer cell lines reveals cancer cell vulnerabilities*. Mol Syst Biol, 2013. **9**: p. 696.

Zheng, Y., C. Zhang, D.R. Croucher, M.A. Soliman, N. St-Denis, A. Pasculescu, L. Taylor, S.A. Tate, W.R. Hardy, K. Colwill, A.Y. Dai, R. Bagshaw, J.W. Dennis, A.C. Gingras, R.J. Daly, and T. Pawson, *Temporal regulation of EGF signalling networks by the scaffold protein Shc1*. Nature, 2013. **499**(7457): p. 166-71.

2012

Al-Hakim, A.K., M. Bashkurov, A.C. Gingras, D. Durocher, and L. Pelletier, *Interaction proteomics identify NEURL4 and the HECT E3 ligase HERC2 as novel modulators of centrosome architecture*. Mol Cell Proteomics, 2012. **11**(6): p. M111 014233.

Belozerov, V.E., Z.Y. Lin, A.C. Gingras, J.C. McDermott, and K.W. Michael Siu, *High-resolution protein interaction map of the Drosophila melanogaster p38 mitogen-activated protein kinases reveals limited functional redundancy*. Mol Cell Biol, 2012. **32**(18): p. 3695-706.

Canton, D.A., C.D. Keene, K. Swinney, L.K. Langeberg, V. Nguyen, L. Pelletier, T. Pawson, L. Wordeman, N. Stella, and J.D. Scott, *Gravin is a transitory effector of polo-like kinase 1 during cell division*. Mol Cell, 2012. **48**(4): p. 547-59.

Choi, H., G. Liu, D. Mellacheruvu, M. Tyers, A.C. Gingras, and A.I. Nesvizhskii, *Analyzing protein-protein interactions from affinity purification-mass spectrometry data with SAINT*. Curr Protoc Bioinformatics, 2012. **Chapter 8**: p. Unit8 15.

Costa, B., M.J. Kean, V. Ast, J.D. Knight, A. Mett, Z. Levy, D.F. Ceccarelli, B.G. Badillo, R. Eils, R. Konig, A.C. Gingras, and M. Fainzilber, *STK25 protein mediates TrkA and CCM2 protein-dependent death in pediatric tumor cells of neural origin*. J Biol Chem, 2012. **287**(35): p. 29285-9.

Ellis, J.D., M. Barrios-Rodiles, R. Colak, M. Irimia, T. Kim, J.A. Calarco, X. Wang, Q. Pan, D. O'Hanlon, P.M. Kim, J.L. Wrana, and B.J. Blencowe, *Tissue-specific alternative splicing remodels protein-protein interaction networks*. Mol Cell, 2012. **46**(6): p. 884-92.

Filippakopoulos, P., S. Picaud, M. Mangos, T. Keates, J.P. Lambert, D. Barsyte-Lovejoy, I. Felletar, R. Volkmer, S. Muller, T. Pawson, A.C. Gingras, C.H. Arrowsmith, and S. Knapp, *Histone recognition and large-scale structural analysis of the human bromodomain family*. Cell, 2012. **149**(1): p. 214-31.

Golipour, A., L. David, Y. Liu, G. Jayakumaran, C.L. Hirsch, D. Treka, and J.L. Wrana, *A late transition in somatic cell reprogramming requires regulators distinct from the pluripotency network*. Cell Stem Cell, 2012. **11**(6): p. 769-82.

Gomez-Ferreria, M.A., M. Bashkurov, A.O. Helbig, B. Larsen, T. Pawson, A.C. Gingras, and L. Pelletier, *Novel NEDD1 phosphorylation sites regulate gamma-tubulin binding and mitotic spindle assembly*. J Cell Sci, 2012. **125**(Pt 16): p. 3745-51.

Gomez-Ferreria, M.A., M. Bashkurov, M. Mullin, A.C. Gingras, and L. Pelletier, *CEP192 interacts physically and functionally with the K63-deubiquitinase CYLD to promote mitotic spindle assembly*. Cell Cycle, 2012. **11**(19): p. 3555-8.

Gustafsson, M.O., A. Hussain, D.K. Mohammad, A.J. Mohamed, V. Nguyen, P. Metalnikov, K. Colwill, T. Pawson, C.I. Smith, and B.F. Nore, *Regulation of nucleocytoplasmic shuttling of Bruton's tyrosine kinase (Btk) through a novel SH3-dependent interaction with ankyrin repeat domain 54 (ANKRD54)*. Mol Cell Biol, 2012. **32**(13): p. 2440-53.

Jin, J., K. Sison, C. Li, R. Tian, M. Wnuk, H.-K. Sung, M. Jeansson, C. Zhang, M. Tucholska, N. Jones, D. Kerjaschki, M. Shibuya, I.G. Fantus, A. Nagy, H.-P. Gerber, N. Ferrara, T. Pawson, and S.E. Quaggin, *Soluble FLT1 Binds Lipid Microdomains in Podocytes to Control Cell Morphology and Glomerular Barrier Function*. Cell 2012. **151**(2): p. 384-399.

Jin, K., J. Li, F.S. Vizeacoumar, Z. Li, R. Min, L. Zamparo, F.J. Vizeacoumar, A. Datti, B. Andrews, C. Boone, and Z. Zhang, *PhenoM: a database of morphological phenotypes caused by mutation of essential genes in Saccharomyces cerevisiae*. Nucleic Acids Res, 2012. **40**(Database issue): p. D687-94.

Jovic, M., M.J. Kean, Z. Szentpetery, G. Polevoy, A.C. Gingras, J.A. Brill, and T. Balla, *Two phosphatidylinositol 4-kinases control lysosomal delivery of the Gaucher disease enzyme, beta-glucocerebrosidase*. Mol Biol Cell, 2012. **23**(8): p. 1533-45.

Knight, J.D., R. Tian, R.E. Lee, F. Wang, A. Beauvais, H. Zou, L.A. Megeney, A.C. Gingras, T. Pawson, D. Figeys, and R. Kothary, *A novel whole-cell lysate kinase assay identifies substrates of the p38 MAPK in differentiating myoblasts*. Skelet Muscle, 2012. **2**: p. 5.

Lawo, S., M. Hasegan, G.D. Gupta, and L. Pelletier, *Subdiffraction imaging of centrosomes reveals higher-order organizational features of pericentriolar material*. Nat Cell Biol, 2012. **14**(11): p. 1148-58.

Li, Y.J., X. Zhao, L.M. Vecchiarelli-Federico, Y. Li, A. Datti, Y. Cheng, and Y. Ben-David, *Drug-mediated inhibition of Fli-1 for the treatment of leukemia*. Blood Cancer J, 2012. **2**(1): p. e54.

Liu, G., J. Zhang, H. Choi, J.P. Lambert, T. Srikumar, B. Larsen, A.I. Nesvizhskii, B. Raught, M. Tyers, and A.C. Gingras, *Using ProHits to store, annotate, and analyze affinity purification-mass spectrometry (AP-MS) data*. Curr Protoc Bioinformatics, 2012. **Chapter 8**: p. Unit8 16.

Luga, V., L. Zhang, A.M. Vitoria-Petit, A.A. Ogunjimi, M.R. Inanlou, E. Chiu, M. Buchanan, A.N. Hosein, M. Basik, and J.L. Wrana, *Exosomes mediate stromal mobilization of autocrine Wnt-PCP signaling in breast cancer cell migration*. Cell, 2012. **151**(7): p. 1542-56.

Marcotte, R., K.R. Brown, F. Suarez, A. Sayad, K. Karamboulas, P.M. Krzyzanowski, F. Sircoulomb, M. Medrano, Y. Fedyshyn, J.L.Y. Koh, D. van Dyk, B. Fedyshyn, M. Luhova, G.C. Brito, F.J. Vizeacoumar, F.S. Vizeacoumar, A. Datti, D. Kasimer, A. Buzina, P. Mero, C. Misquitta, J. Normand, M. Haider, T. Ketela, J.L. Wrana, R. Rottapel, B.G. Neel, and J. Moffat, *Essential gene profiles in breast, pancreatic, and ovarian cancer cells*. Cancer Discovery, 2012. **2**: p. 172-89.

McDermott, S.P., K. Eppert, F. Notta, M. Isaac, A. Datti, R. Al-Awar, J. Wrana, M.D. Minden, and J.E. Dick, *A small molecule screening strategy with validation on human leukemia stem cells uncovers the therapeutic efficacy of kinetin riboside*. Blood, 2012. **119**(5): p. 1200-7.

Morita, M., L.W. Ler, M.R. Fabian, N. Siddiqui, M. Mullin, V.C. Henderson, T. Alain, B.D. Fonseca, G. Karashchuk, C.F. Bennett, T. Kabuta, S. Higashi, O. Larsson, I. Topisirovic, R.J. Smith, A.C. Gingras, and N. Sonenberg, *A novel 4EHP-GIGYF2 translational repressor complex is essential for mammalian development*. Mol Cell Biol, 2012. **32**(17): p. 3585-93.

Ryan, O., R.S. Shapiro, C.F. Kurat, D. Mayhew, A. Baryshnikova, B. Chin, Z.Y. Lin, M.J. Cox, F. Vizeacoumar, D. Cheung, S. Bahr, K. Tsui, F. Tebbji, A. Sellam, F. Istel, T. Schwarzmuller, T.B. Reynolds, K. Kuchler, D.K. Gifford, M. Whiteway, G. Giaever, C. Nislow, M. Costanzo, A.C. Gingras, R.D. Mitra, B. Andrews, G.R. Fink, L.E. Cowen, and C. Boone, *Global gene deletion analysis exploring yeast filamentous growth*. Science, 2012. **337**(6100): p. 1353-6.

van Zuylen, W.J., P. Doyon, J.F. Clement, K.A. Khan, L.M. D'Ambrosio, F. Do, M. St-Amant-Verret, T. Wissanji, G. Emery, A.C. Gingras, S. Meloche, and M.J. Servant, *Proteomic profiling of the TRAF3 interactome network reveals a new role for the ER-to-Golgi transport compartments in innate immunity*. PLoS Pathog, 2012. **8**(7): p. e1002747.

2011

Bisson, N., D.A. James, G. Ivosev, S.A. Tate, R. Bonner, L. Taylor, and T. Pawson, *Selected reaction monitoring mass spectrometry reveals the dynamics of signaling through the GRB2 adaptor*. Nat Biotechnol, 2011. **29**(7): p. 653-8.

Ceccarelli, D.F., R.C. Laister, V.K. Mulligan, M.J. Kean, M. Goudreault, I.C. Scott, W.B. Derry, A. Chakrabartty, A.C. Gingras, and F. Sicheri, *CCM3/PDCD10 heterodimerizes with germinal center kinase III (GCKIII) proteins using a mechanism analogous to CCM3 homodimerization*. J Biol Chem, 2011. **286**(28): p. 25056-64.

Choi, H., B. Larsen, Z.Y. Lin, A. Breitkreutz, D. Mellacheruvu, D. Fermin, Z.S. Qin, M. Tyers, A.C. Gingras, and A.I. Nesvizhskii, *SAINT: probabilistic scoring of affinity purification-mass spectrometry data*. Nat Methods, 2011. **8**(1): p. 70-3.

Dunham, W.H., B. Larsen, S. Tate, B.G. Badillo, M. Goudreault, Y. Tehami, T. Kislinger, and A.C. Gingras, *A cost-benefit analysis of multidimensional fractionation of affinity purification-mass spectrometry samples*. Proteomics, 2011. **11**(13): p. 2603-12.

Dyson, M.R., Y. Zheng, C. Zhang, K. Colwill, K. Pershad, B.K. Kay, T. Pawson, and J. McCafferty, *Mapping protein interactions by combining antibody affinity maturation and mass spectrometry*. Analytical biochemistry, 2011. **417**(1): p. 25-35.

Eberhard, Y., M. Gronda, R. Hurren, A. Datti, N. MacLean, T. Ketela, J. Moffat, J.L. Wrana, and A.D. Schimmer, *Inhibition of SREBP1 sensitizes cells to death ligands*. Oncotarget, 2011. **2**(3): p. 186-96.

Grinshtein, N., A. Datti, M. Fujitani, D. Uehling, M. Prakesch, M. Isaac, M.S. Irwin, J.L. Wrana, R. Al-Awar, and D.R. Kaplan, *Small molecule kinase inhibitor screen identifies polo-like kinase 1 as a target for neuroblastoma tumor-initiating cells*. Cancer Res, 2011. **71**(4): p. 1385-95.

Guettler, S., J. LaRose, E. Petsalaki, G. Gish, A. Scotter, T. Pawson, R. Rottapel, and F. Sicheri, *Structural basis and sequence rules for substrate recognition by Tankyrase explain the basis for cherubism disease*. Cell, 2011. **147**(6): p. 1340-54.

Ito, E., S. Yue, E.H. Moriyama, A.B. Hui, I. Kim, W. Shi, N.M. Alajez, N. Bhogal, G. Li, A. Datti, A.D. Schimmer, B.C. Wilson, P.P. Liu, D. Durocher, B.G. Neel, B. O'Sullivan, B. Cummings, R. Bristow, J. Wrana, and F.F. Liu, *Uroporphyrinogen decarboxylase is a radiosensitizing target for head and neck cancer*. Sci Transl Med, 2011. **3**(67): p. 67ra7.

Kaniuk, N.A., V. Canadien, R.D. Bagshaw, M. Bakowski, V. Braun, M. Landekic, S. Mitra, J. Huang, W.D. Heo, T. Meyer, L. Pelletier, H. Andrews-Polymenis, M. McClelland, T. Pawson, S. Grinstein, and J.H. Brumell, *Salmonella exploits Arl8B-directed kinesin activity to promote endosome tubulation and cell-to-cell transfer*. Cell Microbiol, 2011. **13**(11): p. 1812-23.

Kean, M.J., D.F. Ceccarelli, M. Goudreault, M. Sanches, S. Tate, B. Larsen, L.C. Gibson, W.B. Derry, I.C. Scott, L. Pelletier, G.S. Baillie, F. Sicheri, and A.C. Gingras, *Structure-Function Analysis of Core STRIPAK Proteins: A SIGNALING COMPLEX IMPLICATED IN GOLGI POLARIZATION*. J Biol Chem, 2011. **286**(28): p. 25065-75.

Leung, E., A. Datti, M. Cossette, J. Goodreid, S.E. McCaw, M. Mah, A. Nakhamchik, K. Ogata, M. El Bakkouri, Y.Q. Cheng, S.J. Wodak, B.T. Eger, E.F. Pai, J. Liu, S. Gray-Owen, R.A. Batey, and W.A. Houry, *Activators of cylindrical proteases as antimicrobials: identification and development of small molecule activators of ClpP protease*. Chem Biol, 2011. **18**(9): p. 1167-78.

Li, Z., F.J. Vizeacoumar, S. Bahr, J. Li, J. Warringer, F.S. Vizeacoumar, R. Min, B. Vandersluis, J. Bellay, M. Devit, J.A. Fleming, A. Stephens, J. Haase, Z.Y. Lin, A. Baryshnikova, H. Lu, Z. Yan, K. Jin, S. Barker, A. Datti, G. Giaever, C. Nislow, C. Bulawa, C.L. Myers, M. Costanzo, A.C. Gingras, Z. Zhang, A. Blomberg, K. Bloom, B. Andrews, and C. Boone, *Systematic exploration of essential yeast gene function with temperature-sensitive mutants*. Nat Biotechnol, 2011. **29**(4): p. 361-7.

Olhovsky, M., K. Williton, A.Y. Dai, A. Pasculescu, J.P. Lee, M. Goudreault, C.D. Wells, J.G. Park, A.C. Gingras, R. Linding, T. Pawson, and K. Colwill, *OpenFreezer: a reagent information management software system*. Nat Methods, 2011. **8**(8): p. 612-3.

Page, B.D., S. Fletcher, P. Yue, Z. Li, X. Zhang, S. Sharmeen, A. Datti, J.L. Wrana, S. Trudel, A.D. Schimmer, J. Turkson, and P.T. Gunning, *Identification of a non-phosphorylated, cell permeable, small molecule ligand for the Stat3 SH2 domain*. Bioorg Med Chem Lett, 2011. **21**(18): p. 5605-9.

Prassas, I., G.S. Karagiannis, I. Batruch, A. Dimitromanolakis, A. Datti, and E.P. Diamandis, *Digitoxin-induced cytotoxicity in cancer cells is mediated through distinct kinase and interferon signaling networks*. Mol Cancer Ther, 2011. **10**(11): p. 2083-93.

Skarra, D.V., M. Goudreault, H. Choi, M. Mullin, A.I. Nesvizhskii, A.C. Gingras, and R.E. Honkanen, *Label-free quantitative proteomics and SAINT analysis enable interactome mapping for the human Ser/Thr protein phosphatase 5*. Proteomics, 2011. **11**(8): p. 1508-16.

Skrtic, M., S. Sriskanthadevan, B. Jhas, M. Gebbia, X. Wang, Z. Wang, R. Hurren, Y. Jitkova, M. Gronda, N. Maclean, C.K. Lai, Y. Eberhard, J. Bartoszek, P. Spagnuolo, A.C. Rutledge, A. Datti, T. Ketela, J. Moffat, B.H. Robinson, J.H. Cameron, J. Wrana, C.J. Eaves, M.D. Minden, J.C. Wang, J.E. Dick, K. Humphries, C. Nislow, G. Giaever, and A.D. Schimmer, *Inhibition of mitochondrial translation as a therapeutic strategy for human acute myeloid leukemia*. Cancer Cell, 2011. **20**(5): p. 674-88.

Song, S., T. Christova, S. Perusini, S. Alizadeh, R.Y. Bao, B.W. Miller, R. Hurren, Y. Jitkova, M. Gronda, M. Isaac, B. Joseph, R. Subramaniam, A. Aman, A. Chau, D.E. Hogge, S.J. Weir, J. Kasper, A.D. Schimmer, R. Al-awar, J.L. Wrana, and L. Attisano, *Wnt inhibitor screen reveals iron dependence of beta-catenin signaling in cancers*. Cancer Res, 2011. **71**(24): p. 7628-39.

Templeton, G.W., M. Nimick, N. Morrice, D. Campbell, M. Goudreault, A.C. Gingras, A. Takemiya, K. Shimazaki, and G.B. Moorhead, *Identification and characterization of AtI-2, an Arabidopsis homologue of an ancient protein phosphatase 1 (PPI) regulatory subunit*. Biochem J, 2011. **435**(1): p. 73-83.