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Academic Positions

2016– Chair Professor, Division of Life Science, HKUST
2007–16 Professor, Division of Life Science, HKUST
2001–07 Associate Professor, Department of Biochemistry, HKUST
1996–01 Assistant Professor, Department of Biochemistry, HKUST

Other Positions

2010– Member, State Key Laboratory of Molecular Neuroscience
2009–18 Director, Center for Cancer Research, HKUST
2009–18 Founding Director, Biosciences Central Research Facility, HKUST

Education and Training

1994–96 The Salk Institute, USA
Postdoctoral Fellow (with Tony Hunter, FRS)
1990–94 St. Catharine's College, University of Cambridge, and Cancer Research UK
PhD Biochemistry (with Sir Tim Hunt, FRS, Nobel Laureate)
1986–89 St. Catharine's College, University of Cambridge, UK
MA Natural Sciences
1982–86 Tonbridge School, Tonbridge, UK
Judd Scholar

Honors and Awards

2021 Croucher Foundation Senior Research Fellowship Award
2004 Union for International Cancer Control (UICC) Yamagiwa-Yoshida Memorial
International Cancer Study Fellowship
2002 Croucher Foundation Senior Research Fellowship Award
2000 HKUST School of Science Teaching Award
1997 The Dan Charitable Trust Fund International Fellowship
1995–97 International Human Frontier Science Program Long-Term Fellowship
1994–95 European Molecular Biology Organisation (EMBO) Long-Term Fellowship
1991–94 Imperial Cancer Research Fund Research Studentship
1990–94 University of Cambridge Overseas Research Student Awards
1988 Student Ambassador of Hong Kong
1986 Tonbridge School Judd Scholarship

Advisory Boards

2019–present Academic Committee, State Key Laboratory of Liver Research

Grant Review Boards

2024– Peer Review Expert Panel
Research, Academic and Industry Sectors One-plus (RAISE+) Scheme
Innovation and Technology Commission, HK
2022– Sciences, Medicine, Engineering and Technology Panel
HK PhD Fellowship Scheme and Postdoctoral Fellowship Scheme

2021–	Research Grants Council, HK Biology and Medicine Panel (Joint Research Schemes) Research Grants Council, HK
2017–2022	Innovation and Technology Fund Research Projects Assessment Panel Innovation and Technology Commission, HK
2013–	Grant Review Board, Health and Medical Research Fund HK Food & Health Bureau

Editorial Boards

2022–	Associate Editor in Cell Death and Survival <i>Frontiers in Cell and Developmental Biology</i>
2020–	Associate Editor, <i>Cancer Biology and Therapy</i>
2020–2021	Guest Associate Editor for Cell Death and Survival, <i>Frontiers in Cell and Developmental Biology</i>
2017–	Review Editor in Cell Growth and Division, <i>Frontiers in Cell and Developmental Biology</i>
2015–2016	Editorial Board, <i>SpringerPlus</i>
2013–2016	Editorial Board, <i>Experimental and Molecular Medicine</i>
2008–18	Editorial Board, <i>Biochemical Journal</i>
2012–15	Editorial Board, <i>J. Cancer Research Updates</i>
2005–08	Editorial Advisory Panel, <i>Biochemical Journal</i>
2001–20	Editorial Board, <i>Cancer Biology and Therapy</i>
2001–02	Editorial Board, <i>International Archives of Bioscience</i>

Other Reviewing Activities

2024	Judging Expert, 2023 State Science and Technology Awards
2022	External reviewer, Natural Sciences and Engineering Research Council of Canada
2020	Reviewer, Italian Ministry of Health
2019	Reviewer, Nanyang University (Singapore) Tier 1 grant
2019	Reviewer, Israel Science Foundation grant
2017	Assessment of completed projects, Research Grants Council, HK
2016	Reviewer, Italian Ministry of Health
2015	Reviewer, UICC International Cancer Technology Transfer Fellowships programme
2015	Reviewer, Italian Ministry of Health
2014	Reviewer, A*STAR, Singapore
2014	Reviewer, Yorkshire Cancer Research, UK
2014	Reviewer, President's Science Award, Singapore
2013	Reviewer, A*STAR, Singapore
2013	Reviewer, Dutch Cancer Society (KWF Kankerbestrijding) grant
2013	Reviewer, Cancer Research UK research project grant
2013	Reviewer, Hong Kong Baptist University faculty research grant
2012	Reviewer, Cancer Research UK research project grant
2012	Reviewer, Hong Kong Baptist University faculty research grant
2012	Grant reviewer, Università degli Studi di Torino, Italy
2011	BBSRC (Biotechnology & Biological Sciences Research Council, UK) Grants Board
2011	Reviewer, Association for International Cancer Research grant
2011	Reviewer, Cancer Research UK research project grant
2010	Reviewer, French National Research Agency
2009	Reviewer, Cancer Research UK research project grant
2004–05	Guest Editor, <i>Seminars in Cell and Developmental Biology</i> (Academic Press)
2004	Reviewer for the Breast Cancer Campaign (UK) grant application
2000	Reviewer, The International Human Frontier Science Program Research Grants
2000	Reviewer, The Wellcome Trust Senior Research Fellowship / Research Project Grants
1998–2004	Reviewer, Hong Kong Research Grants Council grants
1994–	<i>Ad hoc</i> peer review for the following journals: <i>Archives Biochem. Biophys.</i> (2000–); <i>Biochem. Cell Biol.</i> (2005–); <i>Biochem. J.</i> (2005–); <i>Biol. Cell</i> (2010–); <i>Blood</i> (1997–); <i>Br. J. Cancer</i> (2004–); <i>Cancers</i> (2014–); <i>Cancer Letters</i> (2018–); <i>Cancer Res.</i> (2000–); <i>Cell Cycle</i> (2009–); <i>Cell Death and</i>

Disease (2015–); *Cell Division* (2014–); *Current Biol.* (1996–); *Exp. Cell Res.* (2005–); *FEBS J.* (2013–); *FEBS Letters* (2005–); *Head & Neck* (2014–); *J. Cell Biol.* (1998–); *J. Cell Sci.* (1994–); *J. Lab. Clin. Med.* (2000–); *Mol. Biol. Cell* (1998–); *Mol. Biol. Reports* (2003–); *Mol. Carcinogenesis* (2005–); *Mol. Cell* (2007–); *Mol. Cell. Biol.* (1997–); *Mol. Interventions* (2011–); *Mol. Oncology* (2014–); *Nature* (2006–); *Nature Genetics* (2001–); *Neuro-Signals* (2003–); *Nucleic Acids Research* (2011–); *Oncogene* (1996–); *Oncogenic Res.* (2009–); *Proc. Natl. Acad. Sci. USA* (2000–); *Radiation Res.* (2007–); *Science Signaling* (2011–); SpringerPlus (2013–).
 Ad hoc reviewer for books: Academic Press (1996–); CSHL Press (2012–)

Other Professional Activities

2023 External examiner, Pathology, The University of Hong Kong
 2022 External examiner, The University of Queensland, Australia
 2022 External examiner, Pathology, The University of Hong Kong
 2021 External examiner, Pathology, The University of Hong Kong
 2021 External examiner, School of Biological Sciences, The University of Hong Kong
 2020 External examiner, Pathology, The University of Hong Kong
 2019 External examiner, Pathology, The University of Hong Kong
 2017 Speaker, St. Paul's co-educational college, Hong Kong
 2017 External examiner, Nanyang Technology University, Singapore
 2016 External examiner, Pathology, The University of Hong Kong
 2016 External examiner, School of Biomedical Sciences, The University of Hong Kong
 2015 Speaker, HKUST 25th Anniversary "Science – Vision into the Future" Seminar, London
 2015 External examiner, Nanyang Technology University, Singapore
 2015 External examiner, Clinical Oncology, The University of Hong Kong
 2015 External examiner, HKU-Pasteur Research Pole
 2015 Speaker, Café Scientifiques, British Council, Hong Kong
 2015 External examiner, Clinical Oncology, The University of Hong Kong
 2014 External examiner, King's College London, UK
 2014 Lecturer, 6th HKU-Pasteur Cell Biology Course
 2012 "Science-for-lunch", Central, Hong Kong
 2012 External examiner, Anatomy, The Chinese University of Hong Kong
 2012 External examiner, National University of Singapore
 2012 Lecturer, 4th HKU-Pasteur Cell Biology Course
 2012 External examiner, School of Biomedical Sciences, CUHK
 2011 External examiner, Molecular Pathophysiology, Innsbruck Medical University, Austria
 2011 External examiner, Chemistry, The University of Hong Kong
 2011 External examiner, Clinical Oncology, The University of Hong Kong
 2010 External examiner, Anatomy, The University of Hong Kong
 2010 Lecturer, 2nd HKU-Pasteur Cell Biology Course
 2010 External examiner, Biochemistry, The University of Hong Kong
 2009 Judging panel, FameLab Hong Kong Competition
 2009 External examiner, Anatomical & Cellular Pathology, CUHK
 2007 External examiner, Biochemistry, The University of Hong Kong
 2007 External examiner, Anatomy, The University of Hong Kong
 2007 External examiner, Surgery, The Chinese University of Hong Kong
 2006 External examiner, The University of Queensland, Australia
 2005 Member, Federation of European Biochemical Societies
 2005 Member, Biochemical Society, UK
 2005 Visiting scholar, Kanazawa University, Kanazawa, Japan
 2004 External examiner, Surgery, The University of Hong Kong
 2004 External examiner, Pathology, The University of Hong Kong
 2004 Member, American Society of Microbiology, USA
 2003 External examiner, Biochemistry, The University of Hong Kong
 2003 External examiner, Pathology, The University of Hong Kong
 2002 Member, American Association for Cancer Research, USA
 2001 Visiting scholar, Kanazawa University, Kanazawa, Japan
 1999 External examiner, Microbiology, The University of Hong Kong

1998 Founding member, Asia-Pacific International Molecular Biology Network (A-IMBN)
1997 Biotechnology Research Institute Working Group

Students and Postdoctoral Fellows Trained

Postdoctoral fellows (12); MPhil/PhD (52); MD-PhD (4)

H-index: 54

https://scholar.google.com/citations?user=UgRv_agAAAAJ&hl=en

Publications

- (1) Kim SH, Lau TTY, Liao MK, Ma HT, and **Poon RYC** (2024) Co-regulation of NDC80 complex subunits determines the fidelity of the spindle-assembly checkpoint and mitosis. *Mol. Cancer Res.*
- (2) Yu CY, Yeung TK, Fu WK, and **Poon RYC** (2024) BCL-XL regulates the timing of mitotic apoptosis independently of BCL2 and MCL1 compensation. *Cell Death & Disease* 15: 2.
- (3) Lau TY and **Poon RYC** (2023) Whole-genome duplication and genome instability in cancer cells: double the trouble. *Int. J. Mol. Sci.* 24: 3733.
- (4) Ng LY, Ma HT, and **Poon RYC** (2023) Cyclin A–CDK1 suppresses the expression of the CDK1 activator CDC25A to safeguard timely mitotic entry. *J. Biol. Chem.* 299: 102957.
- (5) Yeung TK, Kim S, Ma HT, and **Poon RYC** (2023) A robust dual gene ON-OFF toggle directed by two independent promoter–degron pairs. *J. Cell Sci.* 136: jcs260754.
- (6) **Poon RYC** (2022) Mitotic Catastrophe. In: Bradshaw Ralph A., Hart Gerald W. and Stahl Philip D. (eds.) *Encyclopedia of Cell Biology, Second Edition*, vol. 5, pp. 210–216. Oxford: Elsevier.
- (7) Wang Y and **Poon RYC** (2022) MARCH5 regulates mitotic apoptosis through MCL1-dependent and independent mechanisms. *Cell Death Differ.* 30: 753-65.
- (8) Lau HW, Ma HT, Yeung TK, Tam MY, Zheng D, Chu SK, and **Poon RYC** (2021) Quantitative differences between cyclin-dependent kinases underlie the unique functions of CDK1 in human cells. *Cell Reports* 37: 109808.
- (9) **Poon RYC** (2021) Cell cycle control: a system of interlinking oscillators. *Methods Mol. Biol.* 2329: 1-18.
- (10) Yeung TK, Lau HW, Ma HT, and **Poon RYC** (2021) One-step multiplex toolkit for efficient generation of conditional gene silencing human cell lines. *Mol. Biol. Cell* 32: 1320-30.
- (11) Lok TS, Wang Y, Xu WK, Xie S, Ma HT, and **Poon RYC** (2020) Mitotic slippage is determined by p31^{comet} and the weakening of the spindle-assembly checkpoint. *Oncogene* 39: 2819-34.
- (12) Ma HT and **Poon RYC** (2020) Aurora kinases and DNA damage response. *Mutation Res.* 821: 111716.
- (13) Mak JPY, Ma HT, and **Poon RYC** (2020) Synergism between ATM and PARP1 inhibition involves DNA damage and abrogating the G₂ DNA damage checkpoint. *Mol. Cancer Ther.* 19: 123-134.
- (14) Ng LY, Ma HT, Liu JCY, Huang X, Lee N, and **Poon RYC** (2019) Conditional gene inactivation by combining tetracycline-mediated transcriptional repression and auxin-inducible degron-mediated degradation. *Cell Cycle* 18: 238-48.
- (15) Zeng X, Xu WK, Lok TM, Ma HT, and **Poon RYC** (2019) Imbalance of the spindle-assembly checkpoint promotes spindle poison-mediated cytotoxicity with distinct kinetics. *Cell Death & Disease* 10: 314.
- (16) Ma HT and **Poon RYC** (2018) TRIP13 functions in the establishment of the spindle-assembly checkpoint by replenishing O-MAD2. *Cell Reports* 22: 1439-50.
- (17) **Poon RYC** (2018) Cyclin A. In *Encyclopedia of Signalling Molecules*. Second Edition. Ed. Sangdun Choi. Springer, New York. p. 1254-9.
- (18) Ma HT and **Poon RYC** (2017) Synchronization of HeLa cells. *Methods Mol. Biol.* 1524: 189-201.
- (19) Wang XQ, Lo CM, Chen L, Ngan ES, Xu A, and **Poon RYC** (2017) CDK1-PDK1-PI3K/Akt-signaling pathway regulates embryonic and induced pluripotency. *Cell Death Differ.* 24: 38-48.
- (20) Xia W, Lo CM, **Poon RYC**, Cheung TT, Chan ACY, Chen L, Yang S, Tsao GSW, and Wang XQ (2017) Smad inhibitor induces CSC differentiation for effective chemosensitization in cyclin D1- and TGF-β/Smad-regulated liver cancer stem cell-like cells. *Oncotarget* 8: 38811-24.
- (21) Ye F, Kang E, Yu C, Qian X, Jacob F, Yu C, Mao M, **Poon RYC**, Kim J, Song H, Ming G, Zhang M (2017) DISC1 regulates neurogenesis via modulating kinetochore attachment of Ndel1/Nde1 during mitosis. *Neuron* 96: 1041-54.
- (22) Huang S, Tang R, and **Poon RYC** (2016) BCL-W is a regulator of microtubule inhibitor-induced mitotic cell death. *Oncotarget* 7: 38718-30.
- (23) Ma HT and **Poon RYC** (2016) TRIP13 regulates both the activation and inactivation of the spindle-assembly checkpoint. *Cell Reports* 14: 1086-99.

- (24) Poon RYC (2016) Cell cycle control: a system of interlinking oscillators. *Methods Mol. Biol.* 1342: 3-19.
- (25) Poon RYC (2016) Mitotic catastrophe. In *Encyclopedia of Cell Biology*, 1st Edition. Ed Bradshaw & Stahl. Academic Press, San Diego, p 399-403.
- (26) Wong PY, Ma HT, Lee H, and Poon RYC (2016) MASTL(Greatwall) regulates DNA damage responses by coordinating mitotic entry after checkpoint recovery and APC/C activation. *Scientific Reports* 6: 22230.
- (27) Li J, Hong MJ, Chow JPH, Man WY, Mak JPY, Ma HT, and Poon RYC (2015) Co-inhibition of Polo-like kinase 1 and Aurora kinases promotes mitotic catastrophe. *Oncotarget* 6: 9327-40.
- (28) Mak JPY, Man WY, Chow JPH, Ma HT, and Poon RYC (2015) Pharmacological inactivation of CHK1 and WEE1 induces mitotic catastrophe in nasopharyngeal carcinoma cells. *Oncotarget* 6: 21074-84.
- (29) Poon RYC (2015) Cell cycle control. *Reference Module in Biomedical Sciences*. Elsevier. 08-Aug-2015 doi: 10.1016/B978-0-12-801238-3.98748-8.
- (30) Wong WK, Kelly T, Li J, Ma HT, and Poon RYC (2015) SGO1C is a non-functional isoform of Shugoshin and can disrupt sister chromatid cohesion by interacting with PP2A-B56. *Cell Cycle* 14: 3965-77.
- (31) Xie S, Mortusewicz O, Ma HT, Herr P, Poon RYC, Helleday T, and Qian C (2015) Timeless interacts with PARP-1 to promote homologous recombination repair. *Molecular Cell* 60: 163-76.
- (32) Chen H, Huang S, Han X, Zhang J, Shan C, Tsang YH, Ma HT, and Poon RYC (2014) Salt-Inducible Kinase 3 is a novel mitotic regulator and a target for enhancing antimitotic therapeutics-mediated cell death. *Cell Death & Disease* 5: e1177.
- (33) Ma HT, Erdal S, Huang S, and Poon RYC (2014) Synergism between inhibitors of Aurora A and KIF11 overcomes KIF15-dependent drug resistance. *Mol. Oncology* 8: 1408-18.
- (34) Mak JPY, Man WY, Ma HT, and Poon RYC (2014) Pharmacological targeting the ATR-CHK1-WEE1 axis involves balancing cell growth stimulation and apoptosis. *Oncotarget* 5:10546-57.
- (35) Man WY, Mak JPY, and Poon RYC (2014) Dovitinib induces mitotic defects and activates the G₂ DNA damage checkpoint. *J. Cell. Mol. Med.* 18: 143-55.
- (36) Marxer M, Ma HT, Man WY, and Poon RYC (2014) p53 deficiency enhances mitotic arrest and slippage induced by pharmacological inhibition of Aurora kinases. *Oncogene* 33: 3550-60.
- (37) Poon RYC (2014) DNA damage checkpoints in nasopharyngeal carcinoma. *Oral Oncology* 50: 339-44.
- (38) Wang XQ, Chan KK, Ming X, Lui VCH, Poon RYC, Lo CM, Norbury C, and Poon RTP (2014) G₁ checkpoint establishment in vivo during embryonic liver development. *BMC Devel. Biol.* 14: 23.
- (39) Xing X, Poon RYC, Wong CSC, and Yobas L (2014) Label-free enumeration of colorectal cancer cells from lymphocytes performed at a high cell-loading density by using interdigitated ring-array microelectrodes. *Biosensors and Bioelectronics* 61: 434-42.
- (40) Chow JPH, Man WY, Mao M, Chen H, Cheung F, Nicholls J, Tsao GSW, Lung ML, and Poon RYC (2013) Poly(ADP-ribose) polymerase 1 is overexpressed in nasopharyngeal carcinoma and its inhibition enhances radiotherapy. *Mol. Cancer Ther.* 12: 2517-28.
- (41) Chow JPH and Poon RYC (2013) The CDK1 inhibitory kinase MYT1 in DNA damage checkpoint recovery. *Oncogene* 32: 4778-88.
- (42) Han X and Poon RYC (2013) Critical differences between isoforms of Securin reveal mechanisms of Separase regulation. *Mol. Cell. Biol.* 33: 3400-15 (Spotlight article).
- (43) Poon RYC (2013) News and Views. Aurora B: hooking up with cyclin-dependent kinases. *Cell Cycle* 12: 1019-20.
- (44) Chen Y, Chow JPH, and Poon RYC (2012) Inhibition of Eg5 acts synergistically with checkpoint abrogation in promoting mitotic catastrophe. *Mol. Cancer Res.* 10: 626-35.
- (45) Ma HT, Chan YY, Chen X, On KF, and Poon RYC (2012) Depletion of p31^{comet} promotes sensitivity to antimitotic drugs. *J. Biol. Chem.* 287: 21561-9.
- (46) Marxer M, Foucar CE, Man WY, Chen Y, Ma HT, and Poon RYC (2012) Tetraploidization increases sensitivity to Aurora B kinase inhibition. *Cell Cycle* 11: 2567-77.
- (47) Poon RYC (2012) Cyclin A. In *Encyclopedia of Signalling Molecules*. Ed. Sangdun Choi. Springer, New York. p. 491-6.
- (48) Tsang YH, Han X, Man WY, Lee N, and Poon RYC (2012) Novel functions of the phosphatase SHP2 in the DNA replication and damage checkpoints. *PLoS ONE* 7: e49943.
- (49) Chow JPH, Poon RYC, and Ma HT (2011) Inhibitory phosphorylation of CDK1 as a compensatory mechanism for mitotic exit. *Mol. Cell. Biol.* 31: 1478-91.
- (50) Ma HT and Poon RYC (2011) Orderly inactivation of the key checkpoint protein Mitotic Arrest Deficient 2 (MAD2) during mitotic progression. *J. Biol. Chem.* 286: 13052-9.
- (51) Ma HT and Poon RYC (2011) How protein kinases coordinate mitosis in animal cells. *Biochem. J.* 435: 17-31.

- (52) Ma HT and Poon RYC (2011) Synchronization of HeLa cells. *Methods Mol. Biol.* 761: 151-61.
- (53) On KF, Chen Y, Ma HT, Chow JPH, and Poon RYC (2011) Determinants of mitotic catastrophes upon abrogation of the G₂ DNA damage checkpoint by UCN-01. *Mol. Cancer Ther.* 10: 784-94.
- (54) Poon RYC (2011) Biomedical research in Hong Kong. *The Biochemist* 33: 24-25.
- (55) Uchida S, Watanabe N, Kudo Y, Yoshioka K, Matsunaga T, Ishizaka Y, Nakagama H, Poon RYC, Yamashita K (2011) SCF^{beta-TrCP} mediates stress-activated MAP kinase-induced Cdc25B degradation. *J. Cell Science* 124: 2816-25.
- (56) Chow JPH and Poon RYC (2010) DNA damage and polyploidization. In *Polyploidization and Cancer*. Ed. Randy YC Poon Springer, New York. p. 55-69.
- (57) Chow JPH and Poon RYC (2010) Mitotic catastrophe. In *Cell Cycle Deregulation in Cancer* 79-96. Ed. Greg Enders. Springer, New York.
- (58) Ho CC, Hau PM, Marxer M, and Poon RYC (2010) The requirement of p53 for maintaining chromosomal stability during tetraploidization. *Oncotarget* 1: 583-95 (cover story).
- (59) Ma HT and Poon RYC (2010) Genome reduplication: redeployment of cyclin-CDK complexes and spontaneous oscillation of APC/C. *Cell Cycle* 9: 431-2.
- (60) Ma HT and Poon RYC (2010) Gene downregulation with short hairpin RNAs and validation of specificity by inducible rescue in mammalian cells. *Current Protocols in Cell Biology* Chapter 27:Unit27.2.
- (61) Poon RYC (book editor) (2010) *Polyploidization and Cancer*. Springer, New York.
- (62) Chan YW, Chen Y, and Poon RYC (2009) Generation of an indestructible cyclin B1 by caspase-6-dependent cleavage during mitotic catastrophe. *Oncogene* 28: 170-83.
- (63) Ma HT, Tsang YH, Marxer M, and Poon RYC (2009) Cyclin A2-CDK2 cooperates with the PLK1-SCF^{beta-TrCP1}-EM11-APC/C axis to promote genome reduplication in the absence of mitosis. *Mol. Cell. Biol.* 29: 6500-14.
- (64) Uchida S, Yoshioka K, Kizu R, Nakagama H, Matsunaga T, Ishizaka Y, Poon RYC, and Yamashita K (2009) Stress-activated MAP kinases JNK and p38 target Cdc25B for degradation. *Cancer Res.* 69: 6438-44.
- (65) Wang XQ, Liu VCH, Poon RTP, Lu P, and Poon RYC (2009) DNA damage-mediated S and G₂ checkpoints in human embryonal carcinoma cells. *Stem Cells* 27: 568-76.
- (66) Chan YW, Ma HT, Wong W, Ho CC, On KF, and Poon RYC (2008) CDK1 inhibitors antagonize the immediate apoptosis triggered by spindle disruption but promote apoptosis following the subsequent rereplication and abnormal mitosis. *Cell Cycle* 7: 1149-61.
- (67) Chan YW, On KF, Chan WM, Wong W, Siu HO, Hau PM, and Poon RYC (2008) The kinetics of p53 activation versus cyclin E accumulation underlies the relationship between the spindle-assembly checkpoint and the postmitotic checkpoint. *J. Biol. Chem.* 283: 15716-23.
- (68) Chen Y and Poon RYC (2008) The multiple checkpoint functions of CHK1 and CHK2 in maintenance of genome stability. *Frontiers Biosciences* 13: 5016-29.
- (69) Chan WM and Poon RYC (2007) The p53 isoform Δp53 lacks intrinsic transcriptional activity and reveals the critical role of nuclear import in dominant-negative activity. *Cancer Res.* 67: 1959-69.
- (70) Fung TK, Ma HT, and Poon RYC (2007) Specialized roles of the two mitotic cyclins in somatic cells: Cyclin A as an activator of M phase-promoting factor. *Mol. Biol. Cell* 18: 1861-73.
- (71) Poon RYC (2007) Mitotic phosphorylation: breaking the balance of power by a tactical retreat. *Biochem. J.* 403: e5-7.
- (72) Poon RYC and Fung TK (2007) Cyclin A2. *AfCS-Nature Molecule Pages* (doi:10.1038/mp.a000717.01).
- (73) Ma HT, On KF, Tsang YH, and Poon RYC (2007) An inducible system for expression and validation of the specificity of short hairpin RNA in mammalian cells. *Nucleic Acids Res.* 35: e22 (doi: 10.1093/nar/gkl1109).
- (74) Zhang W, Chan HM, Poon RYC, and Wu Z (2007) BS69 is involved in cellular senescence through the p53-p21^{cip1} pathway. *EMBO Reports* 8: 952-8.
- (75) Chan WM, Mak MC, Fung TK, Lau A, Siu WY, and Poon RYC (2006) Ubiquitination of p53 at multiple sites in the DNA binding domain. *Mol. Cancer Res.* 4: 15-25.
- (76) Fung TK and Poon RYC (2006) Cyclin A1. *AfCS-Nature Molecule Pages* (doi:10.1038 /mp.a000716.01).
- (77) Hau PM, Siu WY, Wong N, Lai PBS, and Poon RYC (2006) Polyploidization increases the sensitivity to DNA-damaging agents in mammalian cells. *FEBS Letters* 580: 4727-36.
- (78) Ho CC, Siu WY, Lau A, Chan WM, Arooz T, and Poon RYC (2006) Stalled replication induces p53 accumulation through distinct mechanisms from DNA damage checkpoint pathways. *Cancer Res.* 66: 2233-41.
- (79) Fung TK and Poon RYC (2005) A roller coaster ride with the mitotic cyclins. *Sem. Cell Devel. Biol.* 16: 335-42.

- (80) Fung TK, Yam CH, and **Poon RYC** (2005) The N-terminal regulatory domain of cyclin A contains redundant ubiquitination targeting sequences and acceptor sites. *Cell Cycle* 4: 1411-20.
- (81) Ho CC, Siu WY, Chow JPH, Lau A, Arooz T, Tong HY, Ng IOL, and **Poon RYC** (2005) The relative contribution of CHK1 and CHK2 to Adriamycin-induced checkpoint. *Exp. Cell Res.* 304: 1-15.
- (82) **Poon RYC** (2005) Editorial. *Sem. Cell Devel. Biol.* 16: 309.
- (83) Chan WM, Siu WY, Lau A, and **Poon RYC** (2004) How many mutant p53 molecules are needed to inactivate a tetramer? *Mol. Cell. Biol.* 24: 3536-51.
- (84) Cheung N, So CW, Yam JW, So CK, **Poon RYC**, Jin DY, Chan LC (2004) Subcellular localization of EEN/endophilin A2, a fusion partner gene in leukemia. *Biochem. J.* 383: 27-35.
- (85) Ng CP, Lee HC, Ho CW, Arooz T, Siu WY, Lau A, and **Poon RYC** (2004) Differential mode of regulation of the checkpoint kinases CHK1 and CHK2 by their regulatory domains. *J. Biol. Chem.* 279: 8808-19.
- (86) Siu WY, Lau A, Arooz T, Chow JPH, Ho HTB, and **Poon RYC** (2004) Topoisomerase poisons differentially activate DNA damage checkpoints through ataxia-telangiectasia mutated-dependent and -independent mechanisms. *Mol. Cancer Ther.* 3: 621-32.
- (87) Woo RA and **Poon RYC** (2004) Activated oncogenes promote and cooperate with chromosomal instability for neoplastic transformation. *Genes Devel.* 18: 1317-30.
- (88) Woo RA and **Poon RYC** (2004) Gene mutations and aneuploidy: the instability that causes cancer. *Cell Cycle* 3: 1101-3.
- (89) Chow JPH, Siu WY, Fung TK, Chan WM, Lau A, Arooz T, Ng CP, Yamashita K, and **Poon RYC** (2003) DNA damage during the spindle-assembly checkpoint degrades CDC25A, inhibits cyclin-CDC2 complexes, and reverses cells to interphase. *Mol. Biol. Cell* 14: 3189-4002.
- (90) Chow JPH, Siu WY, Ho HTB, Ma KHT, Ho CC, and **Poon RYC** (2003) Differential contribution of inhibitory phosphorylation of CDC2 and CDK2 for unperturbed cell cycle control and DNA integrity checkpoints. *J. Biol. Chem.* 278: 40815-28.
- (91) Tsang FC, Po LS, Leung KM, Lau A, Siu WY, and **Poon RYC** (2003) ING1b decreases cell proliferation through p53-dependent and independent mechanisms. *FEBS Lett.* 553: 277-85.
- (92) Woo RA and **Poon RYC** (2003) Cyclin-dependent kinases and S phase control in mammalian cells. *Cell Cycle* 2: 316-24.
- (93) Fung TK, Siu WY, Yam CH, Lau A, and **Poon RYC** (2002) Cyclin F is degraded during G₂-M by mechanisms fundamentally different to other cyclins. *J. Biol. Chem.* 277: 35140-9.
- (94) Graeser R, Gannon J, **Poon RYC**, Dubois T, Aitken A, and Hunt T (2002) Regulation of the CDK-related protein kinase PCTAIRE-1 and its possible role in neurite outgrowth of neuro2A cells. *J. Cell Sci.* 115: 3479-90.
- (95) Leung KM, Po LS, Tsang FC, Siu WY, Lau A, Ho HTB, and **Poon RYC** (2002) The candidate tumor suppressor ING1b can stabilize p53 by disrupting the regulation of p53 by MDM2. *Cancer Res.* 62: 4890-3.
- (96) Li KKW, Ng IOL, Fan ST, Albrecht JH, Yamashita K, and **Poon RYC** (2002) Activation of cyclin-dependent kinases CDC2 and CDK2 in hepatocellular carcinoma. *Liver* 22(3): 259-68.
- (97) **Poon RYC** (2002). CAK from Marine Invertebrates to Human. In *CDK-Activating Kinase (CAK)*. Ed. Kaldis P. Landes Bioscience Press, Georgetown, TX. and Kluwer Academic/Plenum Publishers (ISBN 0-306-47438-7) 1-12.
- (98) **Poon RYC** (2002) Cell cycle control. In *Encyclopedia of Cancer 2nd Edition*. Ed. Bertino JR. Academic Press, San Diego; 393-403.
- (99) Yam CH, Fung TK, and **Poon RYC** (2002) Cyclin A in cell cycle control and cancer. *Cell. Mol. Life Sci.* 59: 1317-26.
- (100) Arooz T, Chan HY, Lau WSA, Leung KM, Po LS, Siu WY, Tsang FC, and **Poon RYC** (2001) Regulation of G₂/M cell cycle DNA damage checkpoints. In *Molecular Genetic Basis of Cancer*. Ed. Lung ML and Hsiao WLW. 230-43.
- (101) Wang XQ, Arooz T, Siu WY, Chiu CHS, Lau A, Yamashita K, and **Poon RYC** (2001) MDM2 and MDMX can interact differently with ARF and members of the p53 family. *FEBS Lett.* 490: 202-8.
- (102) Wang XQ, Ongkeko WM, Lau AWS, Leung KA, and **Poon RYC** (2001) A possible role of p73 on the modulation of p53 level through MDM2. *Cancer Res.* 61: 1598-603.
- (103) Yam CH, Siu WY, Kaganovich D, Ruderman JV, and **Poon RYC** (2001) Cleavage of cyclin A at R70/R71 by the bacterial protease OmpT. *Proc. Natl. Acad. Sci., USA* 98: 497-501.
- (104) Arooz T, Yam CH, Siu WY, Lau A, Li KKW, and **Poon RYC** (2000) On the concentrations of cyclins and cyclin-dependent kinases in extracts of cultured human cells. *Biochemistry USA* 39: 9494-501.
- (105) Mal A, Chattopadhyay D, Ghosh MK, **Poon RYC**, Hunter T, and Harter ML (2000) p21 and Rb control the absence of DNA replication in terminally differentiated muscle cells. *J. Cell Biol.* 149: 281-92.

- (106) Yam CH, Siu WY, Lau A, and **Poon RYC** (2000) Degradation of cyclin A does not require its phosphorylation by CDC2 and cyclin-dependent kinase 2. *J. Biol. Chem.* 275: 3158-67.
- (107) Yeung PKK, New DC, Leveson A, Yam CH, **Poon RYC**, and Wong JTY (2000) The spindle checkpoint in the Dinoflagellate *Cryptothecodinium cohnii*. *Exp. Cell Res.* 254:120-9.
- (108) Ongkeko WM, Wang XQ, Siu WY, Lau A, Yamashita K, Harris AL, Cox LS, and **Poon RYC** (1999) MDM2 and MDMX bind and stabilize the p53-related protein p73. *Current Biol.* 9: 829-32.
- (109) Siu WY, Yam CH, and **Poon RYC** (1999) G₁ versus G₂ cell cycle arrest after adriamycin-induced damage in mouse Swiss3T3 cells. *FEBS Lett.* 461: 299-305.
- (110) Siu WY, Arooz T and **Poon RYC** (1999) Differential responses of proliferating versus quiescent cells to adriamycin. *Exp. Cell Res.* 250: 131-41.
- (111) Yam CH, Siu WY, Arooz T, Chiu CHS, Lau A, Wang XQ and **Poon RYC** (1999) MDM2 and MDMX inhibit the transcriptional activity of ectopically expressed SMAD proteins. *Cancer Res.* 59: 5075-8.
- (112) Yam CH, Ng RWM, Siu WY, Lau A and **Poon RYC** (1999) Regulation of cyclin A-Cdk2 activity by SCF component Skp1 and F-box protein Skp2. *Mol. Cell. Biol.* 19: 635-45.
- (113) Albrecht JH, **Poon RYC**, Ahonen CL, Rieland BM, Deng C, and Crary GS (1998) Involvement of p21 and p27 in the regulation of CDK activity and cell cycle progression in the regenerating liver. *Oncogene* 16: 2141-50.
- (114) Ng RWM, Arooz T, Yam CH, Chan IWY, Lau AWS and **Poon RYC** (1998) Characterization of the cullin and F-box protein partner Skp1. *FEBS Lett.* 438: 183-9.
- (115) **Poon RYC** and Hunter T (1998) Expression of a novel form of p21^{Cip1/Waf1} in UV-irradiated and transformed cells. *Oncogene* 16: 1333-43.
- (116) **Poon RYC**, Chau MS, Yamashita K and Hunter T (1997) The role of Cdc2 feedback loop control in the DNA damage checkpoint in mammalian cells. *Cancer Res.* 57: 5168-78.
- (117) **Poon RYC** (1997) Generation of phosphorylated cyclin-dependent kinase 2 and functional characterization of the Thr-160-specific phosphatase KAP. *Methods in Enzymol.* San Diego, Academic Press. 283: 283-92.
- (118) **Poon RYC** (1997) Cell cycle control. In *Encyclopedia of Cancer*. Ed. Bertino, J.R. Academic Press, San Diego 246-55.
- (119) Hunter T and **Poon RYC** (1997) Cdc37: a protein kinase chaperone? *Trends Cell Biol.* 7: 157-61.
- (120) **Poon RYC**, Lew J and Hunter T (1997) Identification of functional domains in the neuronal Cdk5 activator. *J. Biol. Chem.* 272: 5703-8.
- (121) **Poon RYC**, Toyoshima H, and Hunter T (1996) On the masking of signals on immunoblots by cellular proteins. *J. Immunol. Methods* 199: 155-8.
- (122) **Poon RYC**, Jiang W, Toyoshima H, and Hunter T (1996) Cyclin-dependent kinases are inactivated by a combination of p21 and Thr14/Tyr15 phosphorylation after UV-induced DNA damage. *J. Biol. Chem.* 271: 13283-91.
- (123) Mal A, **Poon RYC**, Howe PP, Toyoshima H, Hunter T, and Harter ML (1996) Inactivation of p27^{Kip1} by the viral E1A oncoprotein in TGF β -treated cells. *Nature* 380: 262-5.
- (124) **Poon RYC** and Hunter T (1995) Innocent bystanders or chosen collaborators? *Current Biol.* 5: 1243-7.
- (125) **Poon RYC** and Hunter T (1995) Dephosphorylation of Cdk2 in the absence of cyclin by the CDK-interacting protein Cdi1/KAP. *Science* 270: 90-3.
- (126) **Poon RYC**, Toyoshima H, and Hunter T (1995) Redistribution of the CDK inhibitor p27 in the mouse fibroblast cell cycle and in cells arrested with lovastatin or ultraviolet irradiation. *Mol. Biol. Cell* 6: 1197-213.
- (127) Kobayashi H, Stewart E, **Poon RYC** and Hunt T (1994) Cyclin A and cyclin B dissociate from p34^{cdc2} with half-times of 4 and 15 h, respectively, regardless of the phase of the cell cycle. *J. Biol. Chem.* 269: 29153-60.
- (128) **Poon RYC**, Yamashita K, Howell M, Ershler MA, Belyavsky A and Hunt T (1994) Cell cycle regulation of the p34^{cdc2}/p33^{cdk2}-activating kinase p40^{MO15}. *J. Cell Sci.* 107: 2789-99.
- (129) **Poon RYC** and Hunt T (1994) Reversible immunoprecipitation using Histidine- or glutathione-S-transferase-tagged *Staphylococcal* protein A. *Anal. Biochem.* 218: 26-33.
- (130) **Poon RYC**, Yamashita K, Adamczewski JP, Hunt T and Shuttleworth J (1993) The cdc2-related protein p40^{MO15} is the catalytic subunit of a protein kinase that can activate p33^{cdk2} and p34^{cdc2}. *EMBO J.* 12: 3123-32.
- (131) Bandara LR, Adamczewski JP, Zamanian M, **Poon RYC**, Hunt T and La Thangue NB (1992) Cyclin A recruits p33^{cdk2} to the cellular transcription factor DRTF1. *J. Cell Sci. Suppl.* 16: 77-85.

- (132) Kobayashi H, Steward E, **Poon R**, Adamczewski JP, Gannon J and Hunt T (1992) Identification of the domains in cyclin A required for binding to, and activation of, p34^{cdc2} and p32^{cdk2} protein kinase subunits. **Mol. Biol. Cell** 3: 1279-94.
- (133) Kobayashi H, Minshull J, Ford C, Goldsteyn R, **Poon R** and Hunt T (1991) On the synthesis and destruction of A- and B-type cyclins during oogenesis and meiotic maturation in *Xenopus laevis*. **J. Cell Biol.** 114: 755-65.
- (134) Kobayashi H, Goldsteyn R, **Poon R**, Steward E, Gannon J, Minshull J, Smith R and Hunt T (1991) Cyclins and their partners during *Xenopus* oocyte maturation. **Cold Spring Harbor Symposia on Quantitative Biology** LVI: 437-47.

Organizing and Chairing of Conferences

- (1) Organizer. 2nd Workshop on Mitotic Fidelity. HKUST, Hong Kong. 30 May 2019.
- (2) Discussion leader. Gordon Research Conference on Genome Instability. HKUST, Hong Kong. 22-27 Jul 2018.
- (3) Organizer. Workshop on Mitotic Fidelity. HKUST, Hong Kong. 22 Sep 2017.
- (4) Co-organizer. IAS focused program on genome damage and stability. Hong Kong. 16-19 Dec 2015.
- (5) Co-organizer. Hong Kong–San Diego Workshop on Signaling. Hong Kong. 30 Oct 2015.
- (6) Organizing committee. Advanced Imaging – From System Biology to Single Cell & Single Molecule Analysis. Hong Kong. 2-7 Aug 2015.
- (7) Session chair. Cycling to death: International workshop on cell death, DNA-damage and cell cycle control. Obergurgl, Austria. 23-27 Jan 2013.
- (8) Session chair. The 2nd Japan-China Symposium on Cancer Research. Chiba, Japan. 9-11 May 2012.
- (9) Organizing committee. Tumor microenvironment. Hong Kong. 9-13 Jan 2012.
- (10) Organizing committee. Fundamental biology of aging and aging disorders. Hong Kong. 5-6 Jan 2011.
- (11) Session chair. Chinese University of Hong Kong School of Biomedical Sciences Research Day. 15 Jun 2010.
- (12) Organizing committee and session chair. Aging and Longevity: Biology and Challenge. The Croucher Foundation Advanced Study Institute. Hong Kong. 9-13 Feb 2009.
- (13) Organizing committee and co-chair. Frontier of Science meeting. The Royal Society UK and The Croucher Foundation. Hong Kong. Jan 2008.
- (14) Organizer. The Croucher Foundation Advanced Study Institute on "Signaling in Cell Growth & Differentiation". Hong Kong. 16-20 Jan 2006.
- (15) Organizer. Symposium on "Cell Cycle Control and Lung Cancer". Hong Kong. 11 Dec 2000.

Industry collaboration projects

- (1) CK Life Sciences Limited: collaborative studies on the combination of a cancer vaccine with immune checkpoint inhibitors for melanoma treatment (2018-21). Funded by Innovation and Technology Commission and CK Life Science.
- (2) Bayer: studies of p31^{comet} as a potential drug target (2012). Funded by Bayer.
- (3) Novartis: Preclinical evaluation of Dovitinib in nasopharyngeal carcinoma (2011-12). Funded by Novartis.

Activities and Accomplishments in Education

- (1) Teaching Development Grant: LIFS1902 General Biology II. HK\$ 150,000. 1 May 18-30 Oct 19 (co-PI).
- (2) HKUST School of Science Teaching Award (2000)

Administrative posts (selected)

- (1) "Biomedical Sciences & Translational Medicine" Strategic Hiring Search and Appointment Committee (Member 2023)
- (2) 30 for 30 Research Initiative Scheme panel (Chair 2023).
- (3) International Research Enrichment (IRE) Division Coordinator (2022–).
- (4) School Appointments and Substantiation Committee (Member 2013–16; 2022–).
- (5) University Animal Ethics Committee (Member 2020–2021; Chair 2022–).
- (6) University Committee on Research Practices (Member 2022–)
- (7) Senate Committee on Teaching and Learning Quality (Member 2020–).

- (8) Faculty Search and Appointment Committee (Member 2005–06; Chair 2013–15; Member 2015–16; Chair 2016–17; Chair 2020–21; Member 2022–).
- (9) Substantiation and Promotion Committee (Member 2010–11; Member 2017–18; Chair 2018–20; Member 2020–2021; Chair 2022–).
- (10) Executive, Resource and Planning Committee (Member 2012–15; Member 2018–21; Member 2022–).
- (11) Merit Salary Review Committee (Member 2010–11; Chair 2017–18; Member 2018–19; Chair 2019–21; Member 2022–).
- (12) Task Force for Review of Student Feedback Questionnaire (SFQ) for Teaching Assistants and Teaching Support Staff, Senate Committee on Teaching and Learning Quality (Chair 2021).
- (13) Critical incident coordinator (2017–21).
- (14) University Committee on Appointments of University Professor and Chair Professor (Member 2017–19).
- (15) RAE2020 Working group (Member 2017–19).
- (16) Human Participants Research Panel (Member 2017–19).
- (17) Search Committee for the Head of the Division of Life Science (Member 2010; Member 2017–18).
- (18) Postgraduate committee (Member 2001–06; Member 2011–12).
- (19) Lab Management Committee (Chair 2001–03; Member 2003–06; Chair 2007–11; Chair 2011-13; Member 2013–15).
- (20) Center for Cancer Research (Director 2009–18).
- (21) Director of the Biosciences Central Research Facility (Director 2009–18).
- (22) School Research Committee (Member 2004–06).
- (23) University Peer Review Panel (Member 2004–05).
- (24) Academic Review Committee (Member 2003–05; Chair 2005–11).
- (25) Departmental Safety Officer (2001–2006).