

PETER W.B. PHILLIPS, PHD

Distinguished Professor of Public Policy

Johnson-Shoyama Graduate School of Public Policy, University of Saskatchewan
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EDUCATION

- 1989: Ph.D. in International Relations (International Political Economy), London School of Economics.
- 1981: Masters of Science in Economics, LSE.
- 1980: Bachelor of Arts (High Honours), Economics & Political Science, University of Saskatchewan.

EXPERTISE

STI policy; international political economy; public policy; innovation systems in the bio-sciences; intellectual property and knowledge management; regulation and governance; social network analysis and behavioural experimentation; economic impact evaluation.

PROFESSIONAL CAREER

- 2014- Distinguished Professor of Public Policy, Johnson-Shoyama Graduate School of Public Policy, University of Saskatchewan.
- 2019-20 Sabbatical: Visiting Fellow, Hoffman Centre, RIIA/Chatham House, London, UK; Visiting Professor, Transdisciplinary Studies, University of Technology Sydney, Australia
- 2016-19 Founding Director, Centre for the Study of Science and Innovation Policy, Johnson-Shoyama Graduate School of Public Policy, University of Saskatchewan.
- 2013-16 Graduate Chair, JSGS, USask.
- 2004-22 Associate member, Agriculture and Bioresource Policy, Business and Economics, University of Saskatchewan.
- 2012-17 Associate member, Economics, College of Arts and Sciences, University of Saskatchewan.
- 2009- Professor of Public Policy (tenured), Johnson-Shoyama Graduate School of Public Policy, University of Saskatchewan.
- 2012-13 Sabbatical: Visiting Fellow, Universities of Edinburgh, and Visiting Professor, Institute for Advanced Studies, University of Western Australia.
- 2009-12 Director, Masters of International Trade Program, University of Saskatchewan
- 2007-9 Professor and Head, Political Studies, University of Saskatchewan.
- 2007-8 Founding Director (Pro Tem), Johnson-Shoyama Graduate School of Public Policy.
- 2006-8 Professor at Large, Institute for Advanced Studies, University of Western Australia.
- 2005-6 Sabbatical: Visiting Professor, London School of Economics, London, UK (Aug-Sept 2005); Consultant, OECD, Paris (October-December 2005); Visiting Professor, European University Institute, Florence, Italy (Jan-Mar 2006); Honorary Research Fellow, School of Agricultural and Resource Economics, UWA.
- 2004-9 Professor (tenured), Department of Political Studies, University of Saskatchewan.
- 2002-5 Director, vCollege of Biotechnology, University of Saskatchewan.
- 1999-04 NSERC/SSHRC Chair in Managing Knowledge Based Agri-food Development, Professor of Agricultural Economics, University of Saskatchewan; Associate Member, Management and Marketing, College of Commerce; Professional Associate, Department of Political Studies.
- 1997-9 Van Vliet Chair Professor of Agricultural Economics, University of Saskatchewan.
- 1992-6 Assistant Deputy Minister, Policy, Saskatchewan Economic Development.
- 1990-2 Director, Policy and Research Branch, Saskatchewan Economic Diversification & Trade.
- 1983-7 Senior Economist, Economics and Forecasting, Saskatchewan Executive Council.
- 1981-3 Research Economist, Economics Division, Royal Bank of Canada, Montreal.

INDUSTRIAL AND ADVISORY BOARDS AND SENIOR UNIVERSITY COMMITTEES

- 2020 Member, Canadian Council of the Academies Expert Panel on Managing Plant Health Risks in the Canadian Context

- 2019-23 Member, Clean Growth Expert Panel, Canadian Climate and Clean Growth Institute
- 2019 Chair, Organizing Committee, Whelan Lecture 2019 with Dr. R. Bondar, USask
- 2016-19 Member of University Council, USask
- 2016-19 Member of Priorities and Planning Committee of University Council, USask
- 2018 Member and Co-Chair, Expert Panel Workshop: Towards an Analytical Framework for Appraising the Impacts of AAFC's Science and Innovation Programs, AAFC, Ottawa, October 22-23.
- 2016-17 Member, Canola Initiative National Advisory Council with the Canada Agriculture and Food Museum.
- 2010-16 Board of Directors, Ag West Bio: Chairperson (2014-16); Vice-Chair 2011-14); and chair (2011-14) Governance Committee-; member Audit Committee (2010-2011)
- 1996-17 Founding member and Director, International Consortia of Ag-Biotechnology Research, Rome, Italy; member of Board of Directors (2011-7)
- 2014-19 Member, Promotions Appeal Panel, USask
- 2012-13 Member, International Science Advisory Committee, GM Co-Existence Conference, Portugal, November 2013
- 2012 Member, Advisory Committee, Canadian Science Policy Conference, Calgary, October.
- 2012 Member, Local Organizing Committee, Saskatchewan Tour, Governor General's Canadian Leadership Conference, June.
- 2010-12 Member, Interdisciplinary Graduate Committee, College of Graduate Studies and Research, USask, 2010-12
- 2010-11 Co-Chair, Organizing Committee, GM Co-Existence Conference, Vancouver, Oct. 26-8, 2011
- 2009-12 Member, Scientific Advisory Board, WineGEN, Vancouver, BC
- 2009-12 Member, Board of Directors, Estey Centre for Law and Economics in International Trade
- 2008-09 Member, Search Committee for Tier 1 Canada Research Chair, University of Saskatchewan
- 2006-09 Member, University Review Committee for Tenure and Promotion, USask
- 2007-09 Member, University of Saskatchewan Canada Research Chairs Advisory Committee, USask
- 2006-10 Member, Ethics Committee, Genome Prairie
- 2005-08 Member, University of Saskatchewan Task Force on School of Public Policy, USask
- 2005-07 Chair, Organizing Committee, Whelan Lecture 2007 with Steven Shapin, USask
- 2004-05 Member, Board of Directors, Canadian Agri-food Policy Institute (CAPI), Ottawa.
- 2004-05 Member, Board of Directors, University of Saskatchewan Chaplaincy.
- 2004-05 Member, University of Saskatchewan Taskforce on Changing Structures.
- 2004 Member, organizing committee, Genome Canada GELS Annual Conference, Toronto
- 2003-05 Member, Saskatchewan Innovation Council
- 2003-06 Member, Board of Directors, Pharmalytics Inc., Saskatoon: Pharmalytics is a small, not-for-profit corporation, wholly owned by the University of Saskatchewan, which undertakes contract research and drug clinical trials; company spun-out while on board.
- 1999-07 Member, Canadian Biotechnology Advisory Committee (1999-2007); co-chair of the GM Foods Review (2000-2002); member of executive committee (2003-2007)
- 1999-00 Member, Interim Board, Prairie Agriculture Genome Centre
- 1992-94 Member, Board of Directors, Development Institute of Saskatchewan, Regina

CURRENT AND RECENT MAJOR RESEARCH GRANTS (>45 grants totally >\$250M)

- 2019-23 Bett, K., B. Vandenberg, P. Phillips, et al. Enhancing the Value of Lentil Variation for Ecosystem Survival (EVOLVES). Genome Canada (\$7,432,397). Co-applicant and PI.
- 2019-22 Fraser, Evan, P. Phillips et al. Farming 4.0: Investigating how the digital data revolution may change how we produce food and the nature of rural communities. SSHRC Insight Grant, \$399,248. (Co-applicant)
- 2018-23 Beaudry, Catherine, P. Phillips, et al. Partnership Grant for the Organization of Innovation and New Technologies (4POINT0). SSHRC Partnership Grant, \$2.5 million (estimate \$75K share for research at Saskatoon).
- 2015-22 Moloney, M., P. Phillips, et al. Co-applicant. Designing Crops for Global Food Security, \$37.5 million. Canada First Research Excellence Fund Program. Receive \$3.4 million to run Pillar 4.

- 2915-19 Potter, A., B. Hancock, P. Phillips et al. Co-applicant. Reverse Vaccinology Approach for the Prevention of Mycobacterial Disease in Cattle, \$7,408,600. Genome Canada. Receive \$480K to run GE3LS project.
- 2015-19 Betts, K., B. Vandenberg, P. Phillips, et al. Co-applicant. Application of Genomics to Innovation in the Lentil Economy (AGILE), \$8,132,067. Genome Canada.
- 2014-19 P. Phillips, Co-Applicant and member of Management Committee (D. Wolfe, U of Toronto, lead), Creating Digital Opportunity: Canada's IT Industry in Global Perspective, SSHRC Partnership Grant (\$3.2 million project).
- 2013-18 Co-applicant and Principal Investigator (with J. deBeer, University of Ottawa), Rethinking intellectual property rights for open innovation, SSHRC Insight Grant, \$354,375.
- 2013-17 Co-applicant, NSERC CREATE for Protecting the health of Canadians: Integrated Training Program in Infectious Disease, Food Safety and Public Policy (B. Singh, PI; \$1.65 million; matched, NSERC # 414153-2012).
- 2011-18 Lead, Principal Investigator and Applicant, CFI # 27856 Experimental Decision Laboratory (EDL) at the University of Saskatchewan: A facility for the study of decision-making in complex, uncertain situations (CFI Contribution: \$154,137; total budget \$385,342).
- 2009-14 Co-principal Investigator, Applicant and Co-Lead (with D. Castle), Genome Canada project on Value Generation through Genomics and GE3LS (VALGEN), \$5.4 million.

PUBLICATIONS

16 BOOKS:

- Smyth, S., W. Kerr & P. Phillips. 2019. *GM Agriculture and Food Security: Fears and Facts*. CABI.
- Smyth, S. P. Phillips and W. Kerr. 2017. *Biotechnology Regulation and Trade*. Springer. 275 pp.
- Doern, DB, P. Phillips., and D. Castle. 2016. *Canadian Science, Technology and Innovation Policy: The Innovation Economy and Society Nexus*. MQUP, pp 444.
- Kalaitzandonakes, N., P. Phillips, S. Smyth and J. Wesseler (eds). 2016. *The Co-existence of Genetically Modified, Organic and Conventional Foods: Government Policies and Market Practices*. Springer.
- Smyth, S, D. Castle and P. Phillips. 2015. *Research Collection on Agriculture, Biotechnology and Development*. Edward Elgar.
- Smyth, S, D. Castle and P. Phillips. 2014. *Handbook on Agriculture, Biotechnology and Development*. Edward Elgar, pp 880.
- Atkinson, M., Béland, D., Marchildon, G., McNutt, K., Phillips, P., and Rasmussen, K. 2013. *Governance and Public Policy in Canada: A View from the Provinces*. University of Toronto Press.
- Phillips, P., Webb, G., Karwandy, J, and Ryan, C. 2012. *Innovation in Agri-food Research Systems: Theory and Case Studies*. CABI, pp 215.
- Porter, J. and P. Phillips (eds). 2007. *Public Science in Liberal Democracy*. UTP, pp. 343.
- Phillips, P. and C. Onwuekwe (eds). 2007. *Accessing and Sharing the Benefits of the Genomics Revolution*. Kluwer/Springer, pp. 224.
- Phillips, P. 2007. *Governing transformative technological innovation: Who's in charge?* Edward Elgar.
- Phillips, P., S. Smyth and W. Kerr (eds). 2006. *Governing Risk in the 21st Century: Lessons from the World of Biotechnology*. Nova Science Publishers, pp. 112.
- Smyth, S. P. Phillips, W. Kerr and G. Khachatourians. 2004. *Regulating the Liabilities of Agricultural Biotechnology*. Wallingford, UK: CABI Publishing, pp. 210.
- Phillips, P and R. Wolfe (eds). 2001. *Governing Food: Science, Safety and Trade*. McGill University Press/Queens School of Policy Studies, pp. 174.
- Phillips, P. and G.G. Khachatourians. 2001. *The Biotechnology Revolution in Global Agriculture: Invention, Innovation and Investment in the Canola Sector*. CABI, pp. 360.
- Phillips, P. 1990. *Wheat, Europe and the GATT: A Political Economy Analysis*. London: Pinter Publishers. 200 pp (translated and republished in Japanese 1992).

>70 CHAPTERS IN BOOKS, including:

- Awada, Lana, Peter W. B. Phillips, Stuart J. Smyth. 2018. The Adoption of Automated Phenotyping by Plant Breeders. In *Intelligent Image Analysis for Plant Phenotyping*, A. Samal, S. Das Choudhury, J.-G. Yu and J. Schnable (eds). CRC Press/Taylor & Francis Group.

- Phillips, P., S. Smyth and J. de Beer. 2018. Access and Benefit Sharing the Age of Digital Biology. In *Genetic Resources in an Access and Benefit Sharing Era: Indigenous Peoples as Stakeholders*, Chidi Oguamanam (ed), Cambridge University Press.
- Phillips, P.W.B. 2017. Public-Private R&D in the Development of the Canola Industry in Canada. In Nicholas Kalaitzandonakes, Elias G. Carayannis, Evangelos Grigoroudis, Stelios Rozakis (eds), *From Agriscience to Agribusiness - Theories, Policies and Practices in Technology Transfer and Commercialization*. Springer, 101-117.
- Ugochuckwu, A. and Peter W. B. Phillips. 2017. Technology Adoption by Agricultural Producers: A Review of the Literature. In Nicholas Kalaitzandonakes et al. (eds), *From Agriscience to Agribusiness*. Springer, 361-378.
- Phillips, P.W.B., Ownership of Plant Genetic Resources. In Brian Thomas, Brian G Murray and Denis J Murphy (Editors in Chief), *Encyclopedia of Applied Plant Sciences*, Vol 2, Waltham, MA: Academic Press, 2017, pp. 28–32.
- Phillips, P., and S. Smyth. 2017. The Risk Analysis Framework and Biosafety Policy. Chapter 13 in *Genetically Modified Organisms in Developing Countries*, edited by Ademola A. Adenle, E. Jane Morris and Denis J. Murphy. Cambridge University Press.

>75 PEER REFEREED JOURNAL ARTICLES, including:

- Relf Eckstein, J., P. Phillips and A. Ballantyne. 2019. Farming Reimagined: A case study of autonomous farm equipment and creating an innovation opportunity space for broadacre smart farming. *NJAS - Wageningen Journal of Life Sciences*.
- Peter W.B. Phillips, Jo-Anne Relf-Eckstein, Graeme Jobe, Brian Wixted. 2019. Configuring the new digital landscape in western Canadian agriculture. *NJAS - Wageningen Journal of Life Sciences*.
- Lassoued, R., P. Phillips, S. Smyth and H. Hesselin. 2019. Estimating the cost of regulating genome edited crops: expert judgement and overconfidence. *GM Crops and Food* 10:1, 44-62.
- Lassoued, R., DM Macall, H Hesseln, PWB Phillips, SJ Smyth. 2019. Benefits of genome-edited crops: expert opinion. *Transgenic research*, 1-10, 2019.
- Deutscher, KM, K. Walker and Peter W.B. Phillips. 2019. Conscience in public administration: More than just a chirping cricket? *Canadian Public Administration*, 62(2), doi.org/10.1111/capa.12320.
- Awada, L., PWB Phillips, SJ Smyth. 2018 (August). The adoption of automated phenotyping by plant breeders. *Euphytica* 214 (8), 148, 15 pp.
- Ademola A. Adenle, E. Jane Morris, Denis J. Murphy, Peter W.B. Phillips, Eduardo Trigo, Peter Kearns, Yun-He Li, Hector Quemada, José Falck-Zepeda, John Komen. 2018. Rationalising the Governance of GM Technologies in Developing Countries. *Nature Biotechnology* 36(2), 137-9.

SELECTED STRATEGIC INSTITUTIONAL DEVELOPMENT VENTURES (>12 ventures that leveraged C\$800M)

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| 2016-2019 | Member of team that developed and won C\$153M federal grant to develop the Protein Industries Canada supercluster, which is expected to leverage another C\$300M. |
| 2015-2019 | Leader and founding director, Johnson Shoyama Center for the Study of Science and Innovation Policy, with 8 core faculty and > \$7M research funding. |
| 1999-2006 | Member of development team of virtual College of Biotechnology; second director; secured more than \$5M funding, engaged with more than 60 faculty in 5 colleges, created 9 new degree programs and graduated more than 300 students. |
| 2004-2008 | Member of development team and founding director, Johnson-Shoyama Graduate School of Public Policy; hired first faculty and staff complement, got programs approved, secured and renewed teaching and learning space and recruited first cohort of students. |
| 2011-2012 | Member of development team, Global Institute for Food Security, which secured \$52M endowments and leveraged more than \$50M competitive research grants. |
| 1999-2019 | Founding GE3LS scholar with Genome Canada; only scholar in Canada with continuing funding since beginning of program. |
| 1998-2015 | AAFC Policy Research Networks: Led creation of Canadian Agrifood Trade Research Network (CATRN), the first policy research network; all PRNs have leveraged more than \$8M over the past 20 years. |
| 1998-2000 | Member, local development team, Genome Prairie, which has generated more than \$111M research activity from Genome Canada and \$150M from others |

1999-2004 NSERC/SSHRC Chair in Managing Technological Change: developed and held 5 year, \$1.25M peer reviewed research chair

RECENT RELATED CONSULTING WORK:

- Phillips, P. and P. Boxall. 2019. Pathways to impact: Opportunities and strategies for evaluating AAFC investments in agri-food research. AAFC Commissioned Expert Study, AAFC Contract # 104466717.
- Buckingham, D., P. Phillips, et al. 2018. What We Heard – Barton Forward: Optimizing Growth in the Agri-food Sector. CAPI, Ottawa (personal service contract).
- Schmaltz, K, P. Phillips, S. Johnson. 2017-18. Nisku-Leduc Cluster Strategy Study. Ballard Consulting Group, Edmonton, AB (\$200,000).
- Phillips, P., Relf-Eckstein, J. and Ballantyne, A. 2018. Disruptive Transformation of the Agri-Ecosystem: A Case Study of Bundled Emergent Technologies. A project for Agriculture and Agri-Food Canada, Strategic Policy Branch. Contract 01B68-117-0245. March 2018.
- Phillips, P., Boland, and Ryan, C. 2012-3. Public-Private-Producer Partnerships (P4s) in Canada. AAFC Contract #01B68-12-0213, pp.120.

SELECTED AWARDS AND PRIZES

- Research and writing awards: Saskatchewan Book Awards for scholarly writing, 2001 (co-author, *The Biotechnology Revolution in Global Agriculture*) and for scholarly writing, publishing and publishing in education, 2005 (as co-editor, Saskatchewan Encyclopedia); Quality of Communication Award from the American Agricultural Economics Association, 2007 for *Regulating agricultural biotechnology: Economics and Policy*, edited by R. Just, J. Alston, and D. Zilberman (Smyth, Phillips and Kerr coauthors of chapter); International Chris Award, 2004 (joint recipient with DAVS); first prize in the Scholarly/Reference category in the 2009 New York Book Show sponsored by the Bookbinders' Guild of New York (March 2009 (author of essay in *Imagining Science*, edited by Caulfield and Caulfield); Nominated for U of S Distinguished Researcher Award, 2008, 2017, 2018, 2019.
- Professorships: University of Saskatchewan Distinguished Professor, 2014-; University of Regina Graduate Studies and Research Adjunct Professor, 2010-2020; University Technology Sydney Visiting Professor 2020; Institute of Advanced Study, University of Western Australia, Perth, Professor-at-large, 2006 to 2008; European University Institute Visiting Professor, Florence, Italy, 2006; LSE Visiting Professor, 2005; University of Regina Faculty of Administration Adjunct Professor 1997-2000.
- Fellowships: The Centre for Innovation Studies (THECIS) Fellow Calgary, 2003 to date; Canadian Agricultural Trade Policy Research Network (CAPTRN) Senior Fellow, 2006-date; Visiting Research Fellow, Department of Political and Social Sciences, European University Institute, Florence, Italy (January-March 2006); Honorary Research Fellow, School of Agriculture and Resource Economics, University of Western Australia, Perth, Australia, April-June 2006; Affiliate, Martin Prosperity Institute, Rotman School of Management, University of Toronto, 2010; Chatham House/RIIA Visiting Fellow, 2019
- Listed in Who's Who in Canada, 2001 to date