Environmental Epigenetics
Michael K. Skinner*
Center for Reproductive Biology, School of Biological Sciences, Washington State University, Pullman, WA 99164-4236, USA
*Corresponding author. E-mail: skinner@wsu.edu

With over 350 journals, Oxford University Press is one of the largest publishers of scientific journals. In considering their portfolio recently, they realized they had no specific journals in the rapidly growing area of epigenetics. When they approached me about helping to establish a journal in this area, I considered what other journals had been developed. Several fine journals have been developed in the areas around molecular epigenetics (e.g. Epigenetics, Epigenetics and Chromatin, and Epigenomics) and disease epigenetics (e.g. Clinical Epigenetics and Medical Epigenetics), with ~10 in total journals currently focused on epigenetic topics. One of the main areas of epigenetics not currently addressed is environmental epigenetics. Therefore, I agreed to assist Oxford University Press to establish a journal in this area to be called *Environmental Epigenetics* and act as its founding editor-in-chief.

The field of epigenetics started in the 1940s with Conrad Waddington, who coined the term, studying environment–gene interactions and non-Mendelian genetic phenomena. Epigenetic molecular markers were first identified in the 1970s with DNA methylation, but it was not until the late 1980s and 1990s when many of the epigenetic processes (DNA methylation, histone modifications, chromatin structure, and non-coding RNA) were identified. To put this in perspective, a search of PubMed using the term “epigenetics” yields ~12 000 publications, 11 400 (95%) of which were published in the past 5 years. This reflects the dramatic recent growth in the field. Within the area of epigenetics, the largest sub-topic is molecular epigenetics at 40%, then disease epigenetics at over 30% followed by environmental epigenetics at nearly 25% of the literature published. Growth in the area of environmental epigenetics is shown in Fig. 1, based on PubMed information.

Epigenetics provides the molecular conduit between the environment and regulation of genome activity. The majority of environmental factors cannot alter DNA sequence, but most

![Figure 1. Publication Frequency in Environmental Epigenetics.](image)

© The Author 2015. Published by Oxford University Press. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted reuse, distribution, and reproduction in any medium, provided the original work is properly cited.
can alter genome function and biology. The area of environmental epigenetics involves a large number of distinct topics. One such topic is toxicology, due to the role of epigenetics in the actions of a wide variety of toxicants and environmental compounds. Another is disease, as that is influenced by the environment and epigenetic mechanisms. A growing number of studies also suggest a role for environmental epigenetics in evolutionary biology. Therefore, the scope of Environmental Epigenetics is broad and includes environmental impacts on epigenetics at both a molecular and a physiological level involving all living organisms. This covers areas ranging from evolution, ecology, and population epigenetics to medicine, disease etiology, and the developmental origins of disease. How the environment impacts the molecular mechanisms and processes involved in epigenetics and genetics is included, whether this impacts normal cell and developmental biology or abnormal physiology and toxicology.

Environmental Epigenetics will be a completely open access online journal. A streamlined submission, review, and publication process has been established, as is normal for Oxford University Press online journals. A list of suggested reviewers is required of authors and a minimum of three reviews will be sought. Once two reviews have been received, a decision will be made. This will assure a fast turn around in the review process. The journal will work to review all submitted manuscripts. The review will assess whether the study is sound and has a good experimental design and good data interpretation. Innovation and novelty will be considered, but the journal feels the readership is best suited to judge this rather than the reviewers or editors.

A stellar Editorial Board has been assembled that will facilitate the management of the reviewing process. A Consulting Editorial Board will also advise and assist in reviews when needed, and an Editorial Review Board has been established that will assist in the reviews. A list of the Editors can be found at the Environmental Epigenetics web site www.enviro-epigenetics.org and information can be obtained at envepi.editorialoffice@oup.com

We encourage you to submit your papers to Environmental Epigenetics and I am confident that the journal will provide the optimal venue for the rapidly developing field of epigenetics.

Table 1. Editorial Boards and Members

| Editorial Board | Consulting Board |
|-----------------|------------------|
| Baccarelli, Andrea | Harvard University, USA |
| Bales, Karen | University of California, Davis, USA |
| Blumberg, Bruce | University of California, Irvine, USA |
| Bonduriansky, Russell | University of New South Wales, Australia |
| Chang, Howard | Stanford University, USA |
| Cheng, Xiaodong | Emory University School of Medicine, USA |
| Dolinoy, Dana | University of Michigan, USA |
| Hanson, Mark | University of South Hampton, United Kingdom |
| Jirtle, Randy | North Carolina State University, USA |
| Kelly, William | Emory University, USA |
| LaSalle, Janine | University of California, Davis, USA |
| Mann, Melissa | University of Western Ontario, Canada |
| Mansuy, Isabelle | University/ETH Zürich, Switzerland |
| McCarrey, John | University of Texas at San Antonio, USA |
| Meissner, Alexander | Harvard University, USA |
| Metz, Gerlinde A.S. | University of Lethbridge, Canada |
| Osteen, Kevin | Vanderbilt University School of Medicine, USA |
| Petronis, Art | University of Toronto, Canada |
| Ruden, Douglas | Wayne State university, USA |
| Shioda, Toshihiro | Harvard Medical School, USA |
| Spencer, Hamish | University of Otago, New Zealand |
| Sung, Sibum | The University of Texas at Austin, USA |
| Surani, Azim | Cambridge University, United Kingdom |
| Szyf, Moshe | McGill University, Canada |
| Waterland, Robert | Baylor College of Medicine, USA |
| Weitzman, Jonathan | Université Paris Diderot, France |
| Yan, Wei | University of Nevada Reno, USA |
| Gluckman, Peter | The University of Auckland New Zealand, New Zealand |
| Guillette, Lou | Medical University of South Carolina, USA |
| Jablonka, Eva | Cohn Institute, Tel Aviv University, Israel |
| Jégou, Bernard | INSERM University, France |
| Peterson, Richard | University of Wisconsin, USA |
| Rando, Oliver | University of Massachusetts Medical School, USA |
| Ressler, Kerry | Emory University, USA |
| Swanson, Penny | Northwest Fisheries Science Center, NOAA- Fisheries, USA |
| Tonelliato, Peter | University of Wisconsin Milwaukee, USA |
| vom Saal, Frederick | University of Missouri-Columbia, USA |
## Editorial Review Board

| Name                     | Institution                                      |
|--------------------------|--------------------------------------------------|
| Bhandari, Ramji          | University of Missouri, USA                      |
| Breton, Carrie           | University of Southern California, USA           |
| Burghardt, Kyle J.       | Wayne State University, USA                      |
| Burris, Heather          | Harvard University, USA                          |
| Chen, Jia                | Mount Sinai, USA                                 |
| Colacino, Justin         | University of Michigan, USA                      |
| Colacino, Elena          | Harvard University, USA                          |
| Cropley, Jennifer        | Victor Chang Cardiac Research Institute, Australia|
| Davie, James             | Manitoba Institute of Child Health, Canada       |
| Dearden, Peter K.        | University of Otago, New Zealand                 |
| Dias, Brian G.           | Emory University, USA                            |
| Dinger, Marcel           | Garvan Institute of Medical Research, UNSW, Australia|
| Faulk, Christopher       | University of Michigan, USA                      |
| Fry, Rebecca             | University of North Carolina, USA                |
| Golding, Michael         | Texas A&M University, USA                        |
| Goodrich, Jaclyn         | University of Michigan, USA                      |
| Greer, Eric Lieberman    | Harvard Medical School, USA                      |
| Guerrero-Bosagna, Carlos | Linköping University, Sweden                     |
| Hostetler, Caroline      | Oregon Health & Science University, USA          |
| Houghton, Franchesca     | University of Southampton, United Kingdom        |
| Hoyo, Cathrine           | North Carolina State University, USA             |
| Iderabdullah, Folami     | University of North Carolina, USA                |
| Just, Allan              | Harvard University, USA                          |
| Kelsey, Gavin            | The Babraham Institute, Cambridge, United Kingdom|
| Kile, Molly              | Oregon State University, USA                     |
| Kimmins, Sarah           | McGill University, Montreal, Canada              |
| Kinnally, Erin           | University of Southern California at Davis, USA  |
| Kotaja, Noora            | Institute of Biomedicine, Finland                |
| Kovalchuk, Igor          | University of Lethbridge, Canada                 |
| Kovalchuk, Olga          | University of Lethbridge, Canada                 |
| Kramer, Jamie            | University of Western Ontario, Canada            |
| Laiosa, Michael          | University of Wisconsin, USA                     |
| LaMerrill, Michelle      | University of California at Davis, USA           |
| Marsit, Carmen           | Dartmouth University, USA                        |
| McCullough, Shaun D.     | U.S. EPA, Chapel Hill, NC, USA                   |
| Medici, Valentina        | University of California, Davis, USA             |
| Meyer, Ralph G.          | Utah State University, USA                       |
| Miska, Eric              | Gudon Institute, Cambridge, United Kingdom       |
| Morison, Ian             | University of Otago, Dunedin, New Zealand        |
| Murphy, Susan K.         | Duke University, USA                             |
| Nagel, Susan C.          | University of Missouri-Columbia, USA             |
| Nakagawa, Shinichi       | University of New South Wales, Sydney, Australia |
| Ng, Jane                 | University of Calgary, Canada                    |
| Nilsson, Eric            | Washington State University, USA                 |
| Olson, David             | University of Alberta, Canada                    |
| Öst, Anita               | Linköping University, Sweden                     |
| Owens, Julie             | University of Adelaide, Australia                |
| Rassoulzadegan, Minoo    | Inserm University, France                        |
| Rivera, Rocio            | University of Missouri, USA                      |
| Robert, Claude           | Laval Université, France                         |
| Roth, Tania              | University of Delaware, USA                      |
| Saffery, Richard         | Murdoch Childrens Research Institute, Melbourne, Australia|
| Saha, Ramendra           | University of California, Merced, USA            |
| Schmidt, Rebecca         | University of California Davis MIND Institute, USA|
| Sharma, Abhay            | CSIR-Institute of Genomics and Integrative Biology, New Delhi|
| Skaar, David             | North Carolina State University, USA             |
| Stolzenberg, Danielle    | University of California Davis, USA              |
| Sultan, Sonia            | Wesleyan University, USA                         |
| Suter, Catherine         | Victor Chang Cardiac research Institute, Australia|
| Trasler, Jacqueta        | McGill University, Canada                        |
| Watson, Erica            | University of Cambridge, United Kingdom          |
| Youngson, Neil           | The University of New South Wales, Australia     |
| Zama, Aparna             | Rutgers University, USA                          |
| Zeh, David W.            | University of Nevada, Reno, USA                  |