



Transgenerational Epigenetics

From Academic Press

Download now

Read Online ➔

Transgenerational Epigenetics From Academic Press

Transgenerational Epigenetics provides a comprehensive analysis of the inheritance of epigenetic phenomena between generations. Recent research points to the existence of biological phenomena that are controlled not through gene mutations, but rather through reversible and heritable epigenetic processes.

Epidemiological studies have suggested that environmental factors may be heritable. In fact, environmental factors often play a role in transgenerational epigenetics, which may have selective or adverse effects on the offspring. This epigenetic information can be transferred through a number of mechanisms including DNA methylation, histone modifications or RNA and the effects can persist for multiple generations.

This book examines the evolution of epigenetic inheritance, its expression in animal and plant models, and how human diseases, such as metabolic disorders and cardiovascular diseases, appear to be affected by transgenerational epigenetic inheritance. It discusses clinical interventions in transgenerational epigenetic inheritance that may be on the horizon to help prevent diseases before the offspring are born, or to reduce the severity of diseases at the very earliest stages of development in utero, and current controversies in this area of study, as well as future directions for research.

- Focused discussion of metabolic disorders, cardiovascular diseases and longevity, which appear most affected by reversible and heritable epigenetic processes
- Encompasses both foundational and clinical aspects including discussions of preventative *in utero* therapies
- Covers history, future outlook, disease management and current controversies

↓ [Download Transgenerational Epigenetics ...pdf](#)

📖 [Read Online Transgenerational Epigenetics ...pdf](#)

Transgenerational Epigenetics

From Academic Press

Transgenerational Epigenetics From Academic Press

Transgenerational Epigenetics provides a comprehensive analysis of the inheritance of epigenetic phenomena between generations. Recent research points to the existence of biological phenomena that are controlled not through gene mutations, but rather through reversible and heritable epigenetic processes.

Epidemiological studies have suggested that environmental factors may be heritable. In fact, environmental factors often play a role in transgenerational epigenetics, which may have selective or adverse effects on the offspring. This epigenetic information can be transferred through a number of mechanisms including DNA methylation, histone modifications or RNA and the effects can persist for multiple generations.

This book examines the evolution of epigenetic inheritance, its expression in animal and plant models, and how human diseases, such as metabolic disorders and cardiovascular diseases, appear to be affected by transgenerational epigenetic inheritance. It discusses clinical interventions in transgenerational epigenetic inheritance that may be on the horizon to help prevent diseases before the offspring are born, or to reduce the severity of diseases at the very earliest stages of development in utero, and current controversies in this area of study, as well as future directions for research.

- Focused discussion of metabolic disorders, cardiovascular diseases and longevity, which appear most affected by reversible and heritable epigenetic processes
- Encompasses both foundational and clinical aspects including discussions of preventative *in utero* therapies
- Covers history, future outlook, disease management and current controversies

Transgenerational Epigenetics From Academic Press Bibliography

- Sales Rank: #1631106 in Books
- Published on: 2014-05-20
- Original language: English
- Number of items: 1
- Dimensions: 10.90" h x 1.00" w x 8.60" l, 3.13 pounds
- Binding: Hardcover
- 412 pages

 [Download Transgenerational Epigenetics ...pdf](#)

 [Read Online Transgenerational Epigenetics ...pdf](#)

Editorial Review

Review

"This book is unique in its focus solely on this subject. This is an area destined to become extremely important in the practice of human and medical genetics. This book is without comparison. Score: 99 - 5 Stars"--*Doodys.com*, January 23, 2015

"...this seminal book on transgenerational epigenetics not only confronts these controversies, but also illuminates many other aspects of transgenerational epigenetics."--*Anticancer Research*, January 2015

From the Back Cover

This book provides a comprehensive analysis of the inheritance of epigenetic phenomena between generations. Recent research points to the existence of biological phenomena which are controlled not through gene mutations, but rather, through reversible and heritable epigenetic processes. The mitotic cell-to-cell inheritance of epigenetic information has been established for quite some time; however, meiotic generational epigenetic transfer has only relatively recently emerged as a major factor in inheritance. Epidemiological studies have suggested that environmental factors may be heritable. In fact, environmental factors often play a role in transgenerational epigenetics which may have selective or adverse effects on the offspring. This epigenetic information can be transferred through a number of mechanisms including DNA methylation, histone modifications or RNA and the effects can persist for multiple generations. Several human diseases such as metabolic disorders and cardiovascular diseases appear to be affected by transgenerational epigenetic inheritance and there is evidence that it can also impact longevity. Clinical interventions in transgenerational epigenetic inheritance may be on the horizon to help prevent diseases before the offspring are born or to reduce the severity of diseases at the very earliest stages of development *in utero*.

About the Author

Professor of Biology, University of Alabama at Birmingham, Birmingham, AL. Dr. Tollefsbol is a Professor of Biology and a Senior Scientist in the Center for Aging, Comprehensive Cancer Center, Nutrition Obesity Research Center, and the Comprehensive Diabetes Center at the University of Alabama at Birmingham (UAB). He is Director of the UAB Cell Senescence Culture Facility which he established in 1999 and a Steering Committee Member of the UAB Center for Aging. Dr. Tollefsbol trained as a Postdoctoral Fellow and Assistant Research Professor with members of the National Academy of Science at Duke University and the University of North Carolina. He earned doctorates in molecular biology and osteopathic medicine from the University of North Texas Health Sciences Center and his bachelor's degree in Biology from the University of Houston. He has received prior funding from the NIA, NCI, NHLBI, NIMH and other federal institutes as well as the Glenn Foundation for Medical Research, Susan G. Komen for the Cure, the American Federation for Aging Research (AFAR), and the American Institute for Cancer Research (AICR) among many other sources. The Glenn Foundation for Medical Research funding was unsolicited and was awarded to Dr. Tollefsbol for lifetime contributions to the field of aging. In 2006 Dr. Tollefsbol was selected and highlighted as part of the 25th anniversary of the AFAR for significant contributions to aging research. Dr. Tollefsbol's research interests have covered a wide range of topics such as aging, epigenetics, nutrition, cancer, telomerase, and caloric restriction. Work from his laboratory has been featured in *Women's Health*

magazine, Shape magazine, and the AICR Newsletter and Dr. Tollefsbol has been a Scientist in the Spotlight in ScienceNow. Currently he serves as an Associate Editor for Frontiers in Epigenomics and is on the Editorial Boards of the international journals Open Longevity Science, Epigenetics of Diabetes and Obesity, Molecular Biotechnology and Clinical Epigenetics. He is also a contributing Editor of Lewin's GENES X classic textbook. Over 25 of the publications from Dr. Tollefsbol's laboratory have received national or international accolades such as best paper award, selection for press release by the journal editors and featured on the journal homepage. Dr. Tollefsbol has been invited to give presentations on his research in many countries including Germany, China, Italy, Switzerland, France and The Netherlands as well as at various leading institutions in the US such as Harvard Medical School, Tufts University and the University of California at San Francisco. His research has received considerable media attention both nationally and internationally through television, newspaper and radio venues and has been highlighted in eScience News and ScienceDaily. He has ten books which have been published or are in progress and a recent book on "Epigenetics of Aging" that Dr. Tollefsbol co-authored and edited was highlighted in Nature.

Users Review

From reader reviews:

Jeffrey Brill:

What do you ponder on book? It is just for students because they are still students or that for all people in the world, the actual best subject for that? Simply you can be answered for that issue above. Every person has various personality and hobby for each other. Don't to be forced someone or something that they don't want do that. You must know how great and also important the book Transgenerational Epigenetics. All type of book are you able to see on many resources. You can look for the internet sources or other social media.

Regina Laporte:

As people who live in often the modest era should be revise about what going on or info even knowledge to make them keep up with the era that is certainly always change and make progress. Some of you maybe can update themselves by reading through books. It is a good choice for you personally but the problems coming to a person is you don't know which you should start with. This Transgenerational Epigenetics is our recommendation to help you keep up with the world. Why, as this book serves what you want and need in this era.

Michelle Bachman:

Do you one of the book lovers? If yes, do you ever feeling doubt when you find yourself in the book store? Try to pick one book that you never know the inside because don't assess book by its handle may doesn't work this is difficult job because you are afraid that the inside maybe not since fantastic as in the outside search likes. Maybe you answer can be Transgenerational Epigenetics why because the great cover that make you consider in regards to the content will not disappoint a person. The inside or content will be fantastic as the outside or even cover. Your reading 6th sense will directly make suggestions to pick up this book.

Erin Harmon:

Do you like reading a guide? Confuse to looking for your favorite book? Or your book was rare? Why so many concern for the book? But any kind of people feel that they enjoy intended for reading. Some people likes studying, not only science book but novel and Transgenerational Epigenetics or perhaps others sources were given knowledge for you. After you know how the great a book, you feel wish to read more and more. Science publication was created for teacher or perhaps students especially. Those guides are helping them to bring their knowledge. In other case, beside science reserve, any other book likes Transgenerational Epigenetics to make your spare time a lot more colorful. Many types of book like this.

Download and Read Online Transgenerational Epigenetics From Academic Press #9XMDBHCV5J4

Read Transgenerational Epigenetics From Academic Press for online ebook

Transgenerational Epigenetics From Academic Press Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Transgenerational Epigenetics From Academic Press books to read online.

Online Transgenerational Epigenetics From Academic Press ebook PDF download

Transgenerational Epigenetics From Academic Press Doc

Transgenerational Epigenetics From Academic Press Mobipocket

Transgenerational Epigenetics From Academic Press EPub