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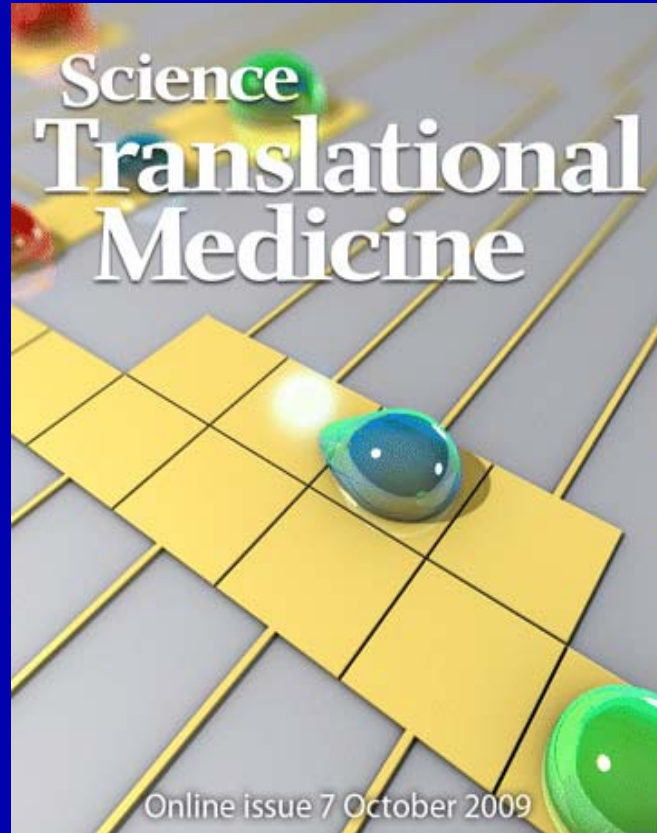
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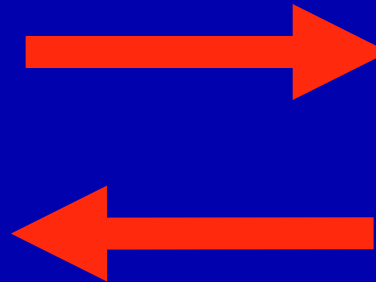
What Is Translational Research?

Research that moves basic discoveries from

Benchtop
(Laboratory)

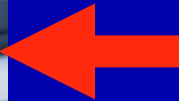
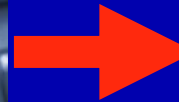
to

Bedside
(Clinic)



Why Is This Journal Important?

**Social forum to improve communication between
basic researchers and applied clinicians**



What Does the Journal Include?

- Original Peer-Reviewed Research
- Commentaries
- Perspectives
- Trainee Section
- Reviews



Which Disciplines Are Covered?

- Cancer
- Cardiovascular Diseases
- Neuroscience
- Immunology
- Gene Therapy
- Toxicology
- Drug Discovery and Delivery
- Policy
- Behavior
- Bioengineering
- Gene Therapy
- Biomarkers
- Data Mining
- Multidisciplinary Approaches to Medicine

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Online issue 7 April 2010

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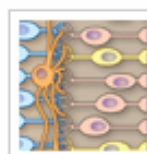
>> [Commentary](#)

>> [Perspective](#)

>> [Research](#)

>> [Editors' Choice](#)

HIGHLIGHTS



PERSPECTIVE

[A Viability Factor for Treating Blinding Diseases](#)

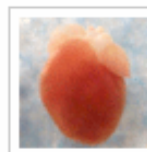
A neuroprotective protein may be broadly useful for treating degenerative retinal diseases caused by mutations in various genes.



COMMENTARY

[Training Translators for Smart Drug Discovery](#)

Human capital is a rate-limiting constraint in translational medicine and therapeutics. [See also the podcast with the author.](#)



RESEARCH

[A Molecular Link Between Heart Failure and Aortic Aneurysm](#)

Klf15 deficiency causes cardiomyopathy and aortopathy by a shared mechanism and defines a novel therapeutic pathway.

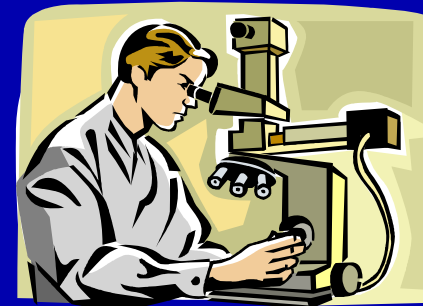


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- **Academic & Medical**
- **Corporate, Health Care, and CROs**
- **Government & Research**



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Sci Transl Med. 2009 Oct 7;1(1):1ra2.

Droplet-scale estrogen assays in breast tissue, blood, and serum.

Mousa NA, Jebrail MJ, Yang H, Abdelgawad M, Metalnikov P, Chen J, Wheeler AR, Casper RF.

Institute of Medical Science, Faculty of Medicine, University of Toronto, 1 King's College Circle, Toronto, Ontario, Canada M5S 1A8.

Abstract

Estrogen is a key hormone in human reproductive physiology, controlling ovulation and secondary sexual characteristics. In addition, it plays an important role in the pathogenesis of breast cancer. Indeed, estrogen receptor antagonists and aromatase inhibitors (which block estrogen biosynthesis) are primary drugs used for treatment and prevention in at-risk populations. Despite its importance, tissue concentrations of estrogen are not routinely measured because conventional techniques require large samples of biopsies for analysis. In response to this need, we have developed a digital microfluidic method and applied it to the extraction and quantification of estrogen in 1-microliter samples of breast tissue homogenate (as would be collected with fine-needle aspiration), as well as in whole blood and serum. This method may be broadly applicable to conditions requiring frequent analysis of hormones in clinical samples (for example, infertility and cancer).

PMID: 20368154 [PubMed - in process]

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- Review Breast cancer tissue estrogens and their manip[J Steroid Biochem Mol Biol. 2003]
- Review Beyond tamoxifen new endpoints for breast cancer chemo[Ann N Y Acad Sci. 2001]
- Review Factors predictive of response to hormone therapy in breast canc[Tumori. 2008]
- Review The selective estrogen enzyme modulators in br[Biochim Biophys Acta. 2004]
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