INCT - Regenera
Instituto Nacional
de Ciência e Tecnologia
em Medicina Regenerativa

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CENABIO/ UFRJ abre as portas para Projeto de extensão do INCT-Regenera

A atividade de extensão organizada pelo Instituto Nacional de Ciência e Tecnologia em Medicina Regenerativa (INCT-Regenera), levou estudantes do Colégio Estadual José Martins da Costa (São Pedro da Serra/Nova Friburgo) a visitar as unidades do Centro Nacional de Biologia Estrutural e Bioimagem (CENABIO), localizado na Universidade Federal do Rio de Janeiro (UFRJ) no dia 28 de junho 2017. Os alunos receberam as boas vindas do Diretor do CENABIO e menbro do INCT-Regenera, Prof. Adalberto Vieyra, do coordenador do INCT-Regenera, Prof. Antonio Carlos Campos de Carvalho, e do Prof. Emiliano Medei, coordenador do projeto de extensão e pesquisador associado ao INCT-Regenera.

Os jovens alunos com idade entre 13 e 19 anos que cursam do 9º ano do Ensino Fundamental ao 3º ano do Ensino Médio puderam vivenciar a rotina dos trabalhos desenvolvidos por estudantes e pesquisadores dos dois INCTs associados ao Cenabio (REGENERA e INBEB). Durante o dia, visitaram as instalações das três unidades do CENABIO conhecendo aspectos da pesquisa em microscopia, imageamento e ressonância magnética nuclear, além da visita

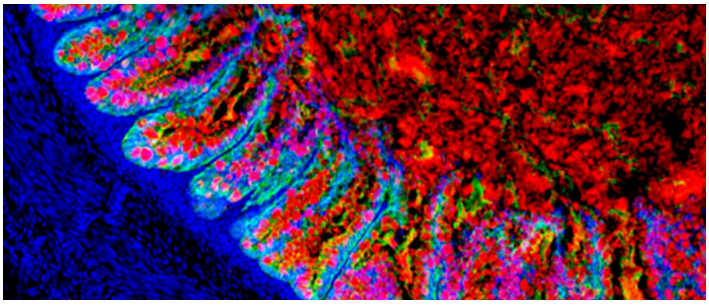
Estudantes do Colégio Estadual José Martins da Costa, em frente a Unidade II do CENABIO, Imageamento de pequenos animais.

ao Laboratório de Cardiologia Celular e Molecular – LCCM, no Instituto de Biofísica Carlos Chagas Filho na Biofísica. Na Unidade de Imageamento de pequenos animais, Unidade II do CENABIO, os estudantes tiveram a oportunidade de conhecer equipamentos de imagem por ressonância magnética (MRI), observar células-tronco vivas em microscópio, aprendendo mais sobre suas características e formas de detecção com a ajuda dos técnicos e professores do local. No Laboratório de Cardiologia Celular e Molecular, observaram cardiomiócitos pulsantes derivados de células-tronco de pluripotência induzida obtendo conhecimento científico compartilhado por pesquisadores e técnico.

O projeto, com periodicidade semestral, tem o objetivo de despertar a curiosidade dos jovens pela ciência e apresentar a Universidade para a sociedade, incentivando o interesse pelo Ensino Superior e pela carreira científica. A atividade de extensão do CENABIO com parceria dos INCTs (REGENERA e INBEB) conta com o apoio da FAPERJ e procura aprofundar o conhecimento em "Células-tronco" e "Imagens e estruturas", e inclui ainda a realização de cursos de férias e palestras de pesquisadores da UFRJ nas escolas da Região Serrana, de São Pedro da Serra, Lumiar e Vargem Alta, do Município de Nova Friburgo - RJ. ◆

Notícias do cenário mundial sobre Medicina Regenerativa - *Maio e Junho*

Cólon humano gerado em laboratório pode ser usado paro o estudo das doenças gastrointestinais



Fonte: Medicalxpress

Scientists used human pluripotent stem cells to generate human embryonic colons in a laboratory that function much like natural human tissues when transplanted into mice.
https://medicalxpress.com/news/2017-06-lab-grown-human-colons-gi.html

Células-tronco cardíacas derivadas de corações doentes podem ser prejudiciais

Fonte: American Friends of Tel Aviv University

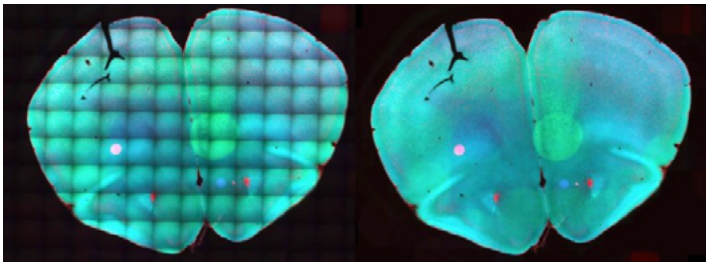
A new study finds that stem cell therapy may harm heart disease patients. https://www.sciencedaily.com/releases/2017/06/170615120629.htm

Novo sistema transforma as células-tronco em qualquer célula de interesse

Fonte: Penn State

Whether using embryonic or adult stem cells, coercing these master cells to convert to the desired target cell and reproduce flawlessly is difficult.
https://www.sciencedaily.com/releases/2017/06/170605150303.htm

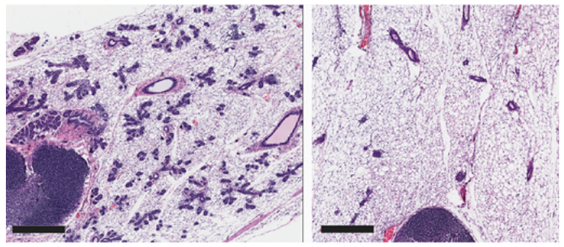
Imagem nítida sobre o desenvolvimento das células-tronco



Fonte: Technical University of Munich (TUM)

Summary:Today, tracking the development of individual cells and spotting the associated factors under the microscope is nothing unusual.
https://www.sciencedaily.com/releases/2017/06/170621103138.htm

Proteína que as células-tronco necessitam pode ser alvo para matar células de câncer de mama



Fonte :Cold Spring Harbor Laboratory

Researchers have identified a protein that must be present in order for mammary stem cells to perform their normal functions.

https://medicalxpress.com/news/2017-06-protein-stem-cells-require-breast.html#jCp

Novas ideias sobre como o vírus da Zika causa microcefalia

Fonte:Wellcome Trust

Scientists have uncovered why Zika virus may specifically target neural stem cells in the developing brain, potentially leading to microcephaly.

https://www.sciencedaily.com/releases/2017/06/170601151903.htm

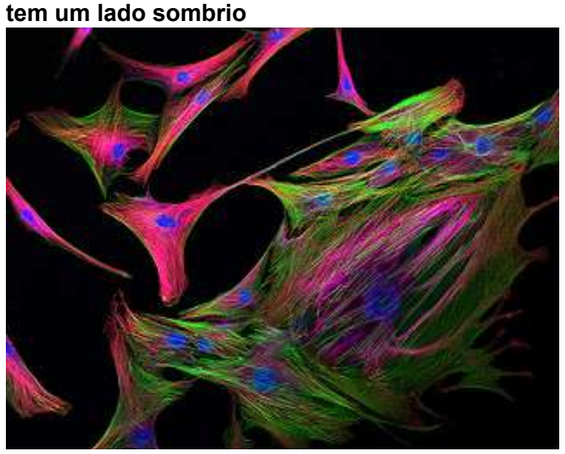
Um gene mais próximo da terapia regenerativa para distúrbios musculares

Fonte : Cincinnati Children's Hospital Medical Center

A detour on the road to regenerative medicine for people with muscular disorders is figuring out how to coax muscle stem cells to fuse together and form functioning skeletal muscle tissues.

https://www.sciencedaily.com/releases/2017/06/170601082231.htm

Células-tronco são promissoras - mas também tem um lado sombrio



Fonte: Medical Xpress

Everyone seems to be excited about stem cells. Their excellent promise as a treatment for a range of diseases and injuries mean almost guaranteed coverage for research.

https://medicalxpress.com/news/2017-05-stem-cells-darker-side.html#jCp

Células-tronco podem ser a chave para permanecer forte no envelhecimento

Fonte: University of Rochester

University of Rochester Medical Center researchers have discovered that loss of muscle stem cells is the main driving force behind muscle decline in old age in mice.

https://medicalxpress.com/news/2017-06-stem-cells-key-strong-age.html#jCp

A descoberta do destino das células sanguíneas humanas revisa o conhecimento do desenvolvimento das células imunes

Fonte: Tokyo Medical and Dental University

Medical researchers have identified a human blood cell type that can only differentiate into monocytes, and is equivalent to mouse cells identified in earlier work.

https://www.sciencedaily.com/releases/2017/06/170614091857.htm

Pesquisadores encontram molécula inflamatória essencial para a regeneração muscular em camundongos

Fonte: Stanford University Medical Center

A molecule released as part of an inflammatory response after muscle injury or rigorous exercise activates muscle stem cells responsible for repairing the damage, according to a study.

https://www.sciencedaily.com/releases/2017/06/170612153607.htm

Protocolo robusto e de alto rendimento para derivar microglia a partir de células-tronco humanas

fonte: New York Stem Cell Foundation

A robust, efficient method for deriving microglia, the immune cells of the brain, from human stem cells has been developed by researchers.

https://www.sciencedaily.com/releases/2017/05/170518140326.htm

Tecnologia CRISPR leva a nova ferramenta de triagem para a doença de Parkinson

Fonte: medicalxpress

A team of researchers at the University of Central Florida is using breakthrough gene-editing technology to develop a new screening tool for Parkinson's disease, a debilitating degenerative disorder of the nervous system.

https://medicalxpress.com/news/2017-06-crispr-tech-screening-tool-parkinson.html#jCp

Tecnologia nova de transplante pode beneficiar pacientes com diabetes tipo 1

Fonte: Georgia Institute of Technology

Combining a new hydrogel material with a protein that boosts blood vessel growth could improve the success rate for transplanting insulin-producing islet cells into persons with type 1 diabetes.

https://medicalxpress.com/news/2017-06-transplant-technology-benefit-patients-diabetes.html #jCp

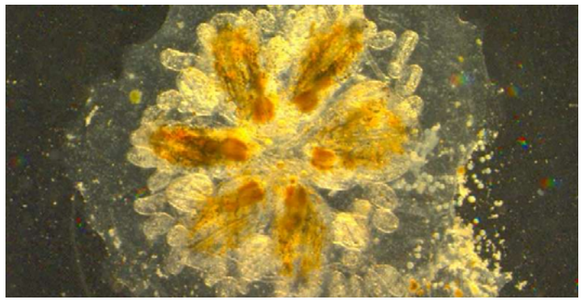
Pesquisadores sugerem que sinais induzindo tumorigênese podem ser enviados pelos tecidos vizinhos

Fonte: Medical Xpress / University of Freiburg

Current view is that cancer development is initiated from cells that acquire initial DNA mutations. These in turn provoke additional defects, and ultimately the affected cells begin to proliferate in an uncontrolled manner to develop primary tumors.

https://medicalxpress.com/news/2017-06-neighboring-tissues-tumorigenesis.html#jCp

Pesquisadores descrevem o processo pelos quais vasos sanguíneos encolhem, o que pode ter importante impacto na saúde humana



Fonte: MedicalXpress

It's a tiny marine invertebrate, no more than 3 millimeters in size. But closely related to humans, Botryllus schlosseri might hold the key to new treatments for cancer and a host of vascular diseases.

https://medicalxpress.com/news/2017-06-blood-vessels-important-implications-human.html

Compostos à base de uva destroem células-tronco cancerígenas de cólon em camundongos

Source: Penn State

Compounds from grapes may kill colon cancer stem cells both in a petri dish and in mice, according to a team of researchers.

https://www.sciencedaily.com/releases/2017/06/170619101829.htm

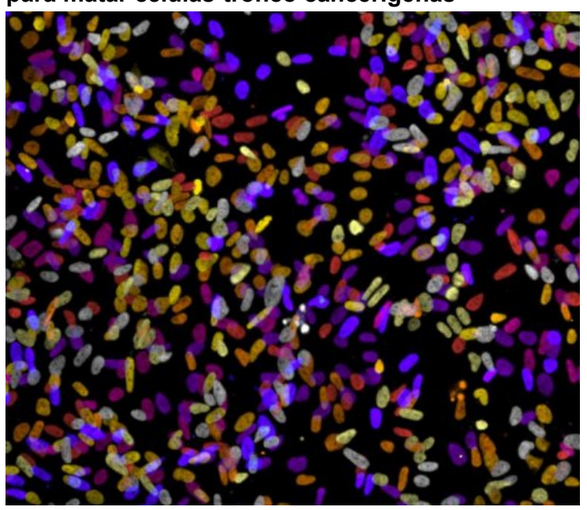
Reconstruindo Orgãos

Fonte: UFRGS Ciência (LABORATÓRIO ASSOCIADO)

Quando se fala em transplante de órgãos, o principal problema ainda é a desproporcional relação entre demanda e doadores. Como a maior parte das doações vem de pessoas falecidas que tenham mantido a integridade física dos órgãos a serem transplantados e, ainda, quando há disponibilidade de uma peça, ela precisa ser compatível com o receptor, o conjunto de fatores acaba não sendo corriqueiro.

http://www.ufrgs.br/secom/ciencia/reconstruindo-orgaos/

Drogas usadas na clínica podem ser utilizadas para matar células-tronco cancerígenas



Fonte: McMaster University

Researchers worked backwards, employing a series of drugs used in the clinic to understand a new way that cancer stem cells can be killed.

https://www.sciencedaily.com/releases/2017/06/170622121948.htm

Novas descobertas sobre mecanismos regulatórios da expressão gênica em células-tronco embrionárias

Fonte: University of Turku

Researchers have discovered new information about the mechanisms which maintain gene activity in human embryonic stem cells.

https://www.sciencedaily.com/releases/2017/05/170531103319.htm

Muito perto do objetivo de décadas: produzindo células-tronco sanguíneas com as células do próprio paciente

Fonte: Medical research

Researchers at Boston Children's Hospital have, for the first time, generated blood-forming stem cells in the lab using pluripotent stem cells, which can make virtually every cell type in the body.

https://medicalxpress.com/news/2017-05-approaching-decades-old-goal-blood-stem.html#jCp

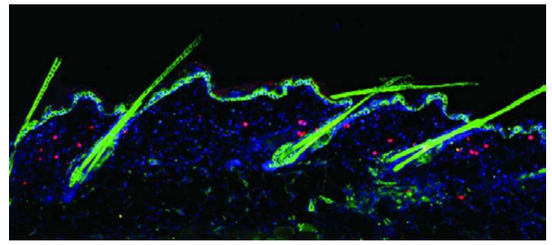
Cautela é importante no uso de PRP ou célula-tronco para tratar lesões em atletas jovens

Fonte: Medical research

Physicians, parents and coaches should be cautious when considering treating injured young athletes with platelet rich plasma (PRP).

https://medicalxpress.com/news/2017-05-caution-urged-prp-stem-cells.html#jCp

Descoberto novo mecanismo para o crescimento capilar



Fonte: Medicalxpress

In experiments in mice, UC San Francisco researchers have discovered that regulatory T cells (Tregs; pronounced "tee-regs"), a type of immune cell generally associated with controlling inflammation, directly trigger stem cells in the skin to promote healthy hair growth.

https://medicalxpress.com/news/2017-05-hair-growth-mechanism.html#jCp

Programa epigenético leva a diferenciação vascular

Fonte: Kumamoto University

Clarification of how human blood vessels are constructed is desperately needed to advance regenerative medicine.

https://www.sciencedaily.com releases/2017/05/170519100448.htm

Identificado em mosca de fruta (Drosophila) hormônio envolvido no desenvolvimento do cérebro.

Fonte: University of Oregon

Researchers using Drosophila have identified a steroid hormone that triggers a vital transition in early brain development in which neural stem cells properly change gears to produce different kinds of neurons.

https://www.sciencedaily.com/releses/2017/05/170515091204.htm

Identificada a base para vasos sanguíneos cerebrais permeáveis na doença de Huntington

Fonte: University of California, Irvine

By using induced pluripotent stem cells to create endothelial cells that line blood vessels in the brain for the first time for a neurodegenerative disease.

https://news.uci.edu/research/basis-of-leaky-brain-blood-vessels-in-huntingtons-disease-identified/

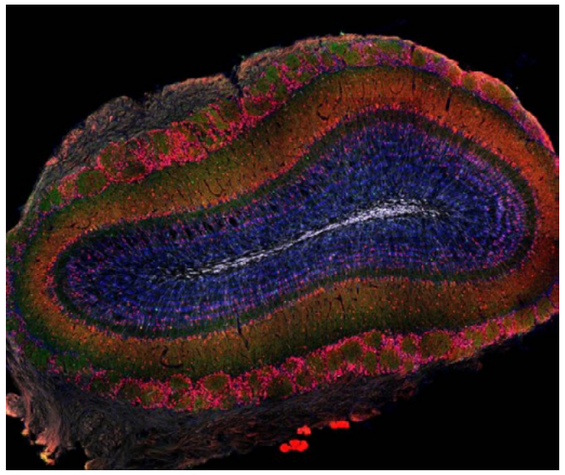
Transplantes de células-tronco podem avançar o tratamento da ELA por reparo da barreira sangue-medula espinhal

Fonte: University of South Florida (USF Health)

Researchers show that bone marrow stem cell transplants helped improve motor functions and nervous system conditions in mice with the disease Amyotrophic Lateral Sclerosis (ALS) by repairing damage to the blood-spinal cord barrier.

https://www.sciencedaily.com/releases/2017/05/170515091129.htm

Regiões celebrais distantes recrutam seletivamente células-tronco



Fonte: University of Basel

Stem cells persist in the adult mammalian brain and generate new neurons throughout life. A research group reports that long-distance brain connections can target discrete pools of stem cells in their niche and stimulate them to divide and produce specific subtypes of olfactory bulb neurons.

https://www.sciencedaily.com/releases/2017/06/170616102136.htm

Pesquisadores identificam sinalização crucial para a função das células-tronco no folículo capilar

Fonte: Medicalxpress

Stem cell researchers at the University of Calgary have found another piece of the puzzle behind what may contribute to hair loss and prevent wounds from healing normally.

https://medicalxpress.com/news/2017-05-crucial-stem-cell-function-hair.html#jCp

As células-tronco produzem um modelo dos vasos do corpo

Fonte: MedicalXpress

In the average adult human, there are an estimated 100,000 miles of capillaries, veins and arteries—the plumbing that carries life-sustaining blood to every part of the body, including vital organs such as the heart and the brain.

https://medicalxpress.com/news/2017-05-stem-cells-yield-nature-blueprint.html#jCp

Células-tronco em plantas e animais tem comportamento supreendentemente similar

Fonte: Lund University

A new study shows that the behavior of stem cells in plants and animals is surprisingly similar. The researchers were able to produce mathematical equations that reveal very small differences in the behavior of the proteins. The results can hopefully be used in stem cell research involving humans.

https://www.sciencedaily.com/releases/2017/05/170512100410.htm

Células-tronco hematopoiéticas enfim produzidas em laboratório

Fonte: NATURE

After 20 years of trying, scientists have transformed mature cells into primordial blood cells that regenerate themselves and the components of blood.

https://www.nature.com/news/lab-grown-blood-stem-cells-produced-at-last-1.22000

Células-tronco específicas para a manutenção e reparo das articulações dos joelhos são identificadas por cientistas

Fonte: Medical research

Stem cells that seem key for maintaining and repairing the body's knee joints have been identified by scientists.

https://medicalxpress.com/news/2017-05-key-stem-cells-knee-joints.html#jCp

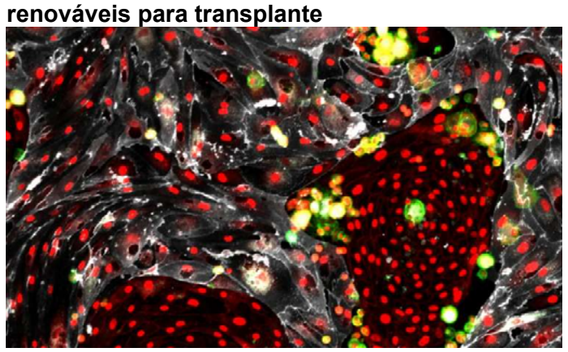
Molécula de RNA que protege as células-tronco do câncer de mama do sistema imune

Fonte: Princeton University

Researchers have identified a small RNA molecule that helps maintain the activity of stem cells in both healthy and cancerous breast tissue.

https://www.sciencedaily.com/releses/2017/05/170523081936.htm

Equipe cria células-tronco hematopoéticas auto-renováveis para transplante



Fonte:Medical research

Researchers at Weill Cornell Medicine have discovered an innovative method to make an unlimited supply of healthy blood cells from the readily available cells that line blood vessels.

https://medicalxpress.com/news/2017-05-team-self-renewing-hematopoietic-stem-cells.html#jCp

Amargo ou doce? Como as células do paladar decidem o que querem ser

Fonte: Monell Chemical Senses Center

A new study advances understanding of how stem cells on the tongue grow into the different types of mature taste cells that detect either sweet, salty, sour, bitter, or umami.

https://www.sciencedaily.com/releases/2017/06/170621082447.htm

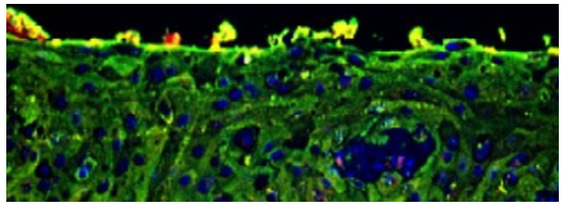
Histórias de células-tronco que chamaram a atenção: cérebros, cérebros e mais cérebros!

Fonte: The Official Blog of CIRM, California's Stem Cell Agency

Bioengineering better brains. Lab grown mini-brains got an upgrade thanks to a study published this week in Nature Biotechnology.

https://blog.cirm.ca.gov/2017/06/02/stem-cell-stories-that-caught-our-eye-brains-brains-and-more-brains/

Defeito congênito na espinha dorsal em camundongos é tratada com Pele 3D criada a partir de células-tronco



Fonte: Cell Press

Myelomeningocele is a severe congenital defect in which the backbone and spinal canal do not close before birth, putting those affected at risk of lifelong neurological problems.

https://www.sciencedaily.com/releases/2017/06/170606135823.htm

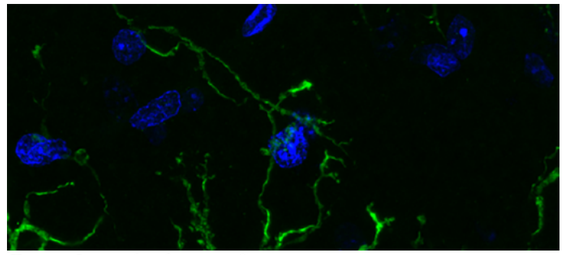
Estudo em camundongo examina a segurança da terapia com células-tronco para a menopausa precoce

Fonte: Cell Press

Now that we know that egg-making stem cells exist in adults and that these cells can be transplanted into mice with premature ovarian failure to produce offspring, the next question is to assess whether the offspring from an adult mouse are normal compared to natural births.

https://www.sciencedaily.com/releases/2017/05/170518140332.htm

Células imunes do cérebro estão ligadas a doenças de Alzheimer, Parkinson e esquizofrenia



Fonte: Journal reference: Science

Scientists have, for the first time, characterized the molecular markers that make the brain's front lines of immune defense—cells called microglia—unique.

https://medicalxpress.com/news/2017-05-brain-immune-cells-linked-alzheimer.html#jCp

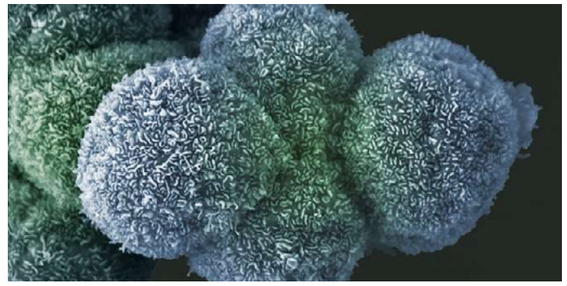
Curando feridas com Terapia Celula

Fonte: Medical Xpress / Journal of Investigative Dermatology

Diabetic patients frequently have lesions on their feet that are very difficult to heal due to poor blood circulation.

https://medicalxpress.com/news/2017-05-wounds-cell-therapy.html#jCp

Gerard Evan: Invadindo a normalidade



Fonte: MedicalXpress

Currently Sir William Dunn Professor at the University of Cambridge, Gerard Evan has focused his research the MYC oncogene. His lab has recently started working on pancreatic and lung cancer, drawn in part by the excellent ...

https://medicalxpress.com/news/2017-06-hacking-gerard-evan.html

Eventos 2017

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Conferência Internacional de Biofabricação de 2017, que será realizada em Pequim, China.
15 a 18 de outubro 2017.
http://bf2017.medmeeting.org/5085?lang=en

.....

A conferência será focada no tema "O Caminho para a Medicina Regenerativa: Passando o Laboratório para o Paciente".
3 a 6 de Dezembro 2017.
https://www.termis.org/am2017/index.php

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favor fazer contato por e-mail o qual será submetido a coordenação do INCT-Regenera.
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