

## 生体医工学

### 生体医工学のイノベーションはIOPscienceとともに

生体医工学や生物物理学、医学物理学の研究開発においても、またはこれらの分野間の学際研究においても、IOPscience は御社の研究になくてはならないリソースです。

IOPscience には、御社の研究開発部門において創造力とイノベーションを引き出すコンテンツがあります。

#### 生体医工学の主な内容:

- 放射線治療
- 医用画像
- 医療機器
- ナノメディシン
- 組織工学
- 神経科学
- 呼吸分析
- プラズマ医療
- 心臓血管モニタリング
- バイオプリンティング
- 神経技術
- 生体工学
- 医療バーチャル・リアリティ
- ロボット工学
- ウェアラブルデバイス
- 人工知能

#### 生体医学コミュニティとの連携

当社の著名な編集委員が出版物の品質保証のために連携を行っています:

- **Julia Zimmermann**  
terraplasma GmbH, Germany  
Editorial board, *Biomedical Physics & Engineering Express*
- **A Modak**  
Owlstone Medical, UK  
Editorial board, *IOP SciNotes* and *Journal of Breath Research™*
- **S Harshman**  
UES Inc., USA  
Editorial board, *Journal of Breath Research™*
- **M Thompson**  
GE Additive, OH, USA  
Peer review board, *Surface Topography: Metrology and Properties™*
- **N Marczin**  
Harefield Hospital, UK  
Editorial board, *Journal of Breath Research™*
- **T Dintinger**  
Sellafield Ltd, UK  
Editorial board, *Journal of Radiological Protection*
- **Richard Becker**  
US Army Medical Research and Materiel Command, USA  
Editorial board, *Modelling and Simulation in Materials Science and Engineering™*
- **Y Sandamirskaya**  
Intel, Germany  
Executive editorial board, *Neuromorphic Computing and Engineering*
- **A Sitek**  
IBM Watson Health, USA  
Editorial board, *Physics in Medicine & Biology*
- **Max Fleischer**  
Siemens AG, Germany  
Peer review board, *Measurement Science and Technology™*

## 世界でトップレベルの生体医工学企業による研究を特集

- Learning-based occupational x-ray scatter estimation  
**Siemens Healthcare GmbH, Germany**
- Indole as a new tentative marker in exhaled breath for non-invasive blood glucose monitoring of diabetic subjects  
**Roche Diabetes Care GmbH, Germany**
- Patient specific distortion detection and mitigation in MR images used for stereotactic radiosurgery  
**Siemens Medical Solutions, USA**
- Automated scripting of the dosimetric evaluation of adaptive versus non-adaptive radiotherapy  
**GenesisCare, UK**
- Generation of quantification maps and weighted images from synthetic magnetic resonance imaging using deep learning network  
**GE Healthcare, China**

## 最近の特別号

- Wearable and Implantable Sensors for Healthcare and Medical Applications  
*Journal of Micromechanics and Microengineering™*
- Neuroelectronic Interfaces  
*Journal of Neural Engineering™*
- Nano-Enabled Biointerfaces  
*Nanotechnology™*
- Biomaterials Approaches to the Repair and Regeneration of Cartilage Tissue  
*Biomedical Materials™*
- Interferometric Scattering Microscopy  
*Journal of Physics D: Applied Physics™*
- Machine Learning Models in Medical Imaging  
*Physics in Medicine & Biology*
- Deep ultraviolet light sources for post-COVID-19 sustainable society  
*Japanese Journal of Applied Physics*
- Immunomodulatory Biomaterials  
*Biomedical Materials*

## 生体医工学のホットな話題

- Functional nanomaterial-enabled synthetic biology
- Roadmap on nanomedicine
- From local to global matrix organization by fibroblasts: a 4D laser-assisted bioprinting approach
- Investigation of insulin resistance through a multiorgan microfluidic organ-on-chip
- 3D coaxial bioprinting: Process mechanisms, bioinks and applications
- Foreign body response to synthetic polymer biomaterials and the role of adaptive immunity
- Application of gold nanomaterials for ionizing radiation detection
- Weakly nonlinear theory on ultrasound propagation in liquids containing many microbubbles encapsulated by visco-elastic shell

世界トップクラスの革新的な生体医学企業が IOPscience を購読しています。IOPscience の購読をご検討の場合は [customerservices@iopublishing.org](mailto:customerservices@iopublishing.org) へお問い合わせください。無料のお試し購読をご利用いただけます。



ご登録いただくと最新の生体医工学情報が届きます