Welcome to the 2nd Volume of *Bioelectronics in Medicine*

Alice Bough*,¹

¹Future Science Group, Unitec House, 2 Albert Place, London N3 1QB, UK

*Author for correspondence: a.bough@futuremedicine.com

First draft submitted: 02 November 2018; Accepted for publication: 1 February 2019; Published online: 14 June 2019

Keywords: bioelectronics • neuromodulation • research • rheumatoid arthritis • vagus nerve stimulation

To all our readers, we are delighted to welcome you to the 2nd Volume of *Bioelectronics in Medicine* and are pleased to introduce you to the first issue of 2019.

2018 was an exciting year for the journal with the launch of its inaugural issue and the following issues presenting articles covering a wide range of topics in the rapidly emerging sector of bioelectronics. We are delighted to have also been accepted for EMBASE indexing. In this article, we are proud to present some of our content highlights.

Content highlights of 2018

At the time of writing (October 2018), our most read article of the last year was an interview with Paul-Peter Tak (University of Amsterdam, The Netherlands). The interview, on the topic of ‘Stimulating the vagus nerve to treat rheumatoid arthritis’ covered Tak’s recent work on the treatment of the inflammatory disorder and his predictions of how the bioelectronics field will develop in the future [1].

Our second most read article was a review entitled ‘Sacral neuromodulation for the treatment of urinary bladder dysfunction: mechanism of action and future directions’. In this paper, the author discussed how refractory overactive bladder syndrome could be treated effectively by electrical stimulation of the sacral nerve [2].

Our third most popular article was an Editorial by authors from the University of Pennsylvania (PA, USA). This article entitled ‘Bioelectronics: the promise of leveraging the body’s circuitry to treat disease’ gave an overview of how neuromodulation can be used to treat a variety of disease states and how recent advances in the development of bioelectronics devices may affect industry and society [3].

Our most read research article was ‘Calibration of thresholds for functional engagement of vagal A, B and C fiber groups *in vivo*’. The authors, a team of researchers from the Florey Institute of Neuroscience and Mental Health (Victoria, Australia) established a protocol to discriminate between the thresholds for activation of vagal fibers A, B and C *in vivo* and discussed the therapeutic potential of their work [4].

Readership demographics

It is great to see that in 2018 our journal is being read throughout the world, with the highest number of readers being from North America (49%) and Europe (24%) (Figure 1). In terms of individual countries, the highest number of readers originated from the USA (45%). It is encouraging to see that our journal is reaching people across all continents. We look forward to continuing the circulation of our journal content to an increasingly global audience in the upcoming year.

Authorship demographics

It is interesting to see where in the world the content of *Bioelectronics in Medicine* comes from. In 2018, authors from the USA submitted 48% of all content (Figure 2). With submissions from Israel, Australia and Brazil, we will continue to welcome manuscript submissions from across the world and encourage unsolicited article proposals.

Conclusion

We welcome all feedback from the community regarding the direction our journal is taking and any suggestions for topics you wish to see covered in *Bioelectronics in Medicine*. Our readers are encouraged to connect with us via

Figure 1. Proportion of readership demographics for *Bioelectronics in Medicine* in 2018.

Figure 2. Proportion of authorship demographics for *Bioelectronics in Medicine* in 2018.

Twitter @Bioelectronic1 [5]. As mentioned previously, we accept unsolicited articles of all forms; original research articles, reviews and opinion articles. Please get in contact if you are interested in submitting. In particular, we are looking for submissions surrounding key areas such as:

- The characterization of neural pathways affecting organs, functions and disease states.
- Defining neural circuits.
- Computational and theoretical modeling.
- Device development and the miniaturization of bioelectronic devices.
- Development of stimulating devices that interact with the nervous system or other cell types.
- Novel materials for the development of bioelectronics.
- Novel stimulation techniques.
- Biosensors in the context of bioelectronic tools.
- Improving the electrode-neural interface.
- Advances in bioelectronic technology and their potential medical applications.
- The benefits of bioelectronic devices over traditional techniques.
- Benchtop design and evaluation.
- Preclinical and clinical testing of bioelectronic technology.
- Clinical trials.
- Ethical, regulatory and legal issues.

- Commercialization, funding and economics of bioelectronic technology.

We would like to take this opportunity to thank all of our valued Editorial Board members, readers and contributors for their continued support. We greatly look forward to collaborating with you all over the coming year.

Financial & competing interests disclosure

Alice Bough is an employee of Future Science Ltd, publisher of *Bioelectronics in Medicine*. The author has no other relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript apart from those disclosed.

No writing assistance was utilized in the production of this manuscript.

References

1. Ryan SA, Dunne RB. Pharmacokinetic properties of intranasal and injectable formulations of naloxone for community use: a systematic review. *Bioelectron. Med.* 1(1), 17–20 (2018).
2. Blok BFM. Sacral neuromodulation for the treatment of urinary bladder dysfunction: mechanism of action and future directions. *Bioelectron. Med.* 1(1), 85–94 (2018).
3. Vitale F, Litt B. Bioelectronics: the promise of leveraging the body's circuitry to treat disease. *Bioelectron. Med.* 1(1), 3–7 (2018).
4. McAllen RM, Shafton AD, Bratton BO, Trevaks D, Furness JB. Calibration of thresholds for functional engagement of vagal A, B and C fiber groups in vivo. *Bioelectron. Med.* 1(1), 21–27 (2018).
5. *Bioelectronics in Medicine* journal. Twitter. <https://twitter.com/Bioelectronic1>