

# Immunotherapy advances: One year on

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Harnessing advances in immunology to prevent and treat disease have been increasingly visible this year. In 2020, we saw new vaccines for SARS-CoV-2 taken from the laboratory to mass deployment with unprecedented speed – including novel platforms such as RNA – in an endeavour that brought together immunologists, clinical trialists, healthcare professionals, industry, NGOs, and governments across the world to expedite a global operation that has seen over seven billion doses administered so far. In the same period, we have seen the FDA grant over 30 new approvals for the use of anti-PD-1/PD-L1 immune checkpoint inhibitors bringing the total number of cancer types now treatable with these immunotherapeutics to 22; and over 20 immunotherapeutic drugs traditionally used to treat autoinflammatory diseases have been repurposed for treatment of COVID-related pathologies in millions of individuals. In fact, there are few areas of medicine that have not yet been positively impacted by the tremendous advances in immunotherapy.

At *Immunotherapy Advances*, we are committed to disseminating exciting new developments like these and to empowering our community with the knowledge to assist their progress. By establishing our credentials as a high-quality destination journal with a global reach, our content showcases emerging innovations in the international immunotherapy arena. In the past year alone, we have attracted over 45 000 downloads, with almost half of our published articles being viewed more than 1000 times in the past year. Our authorship has been truly international with submissions from researchers based on all six continents.

A significant milestone from 2021 is our listing on the Directory of Open Access Journals (DOAJ) and, to further enable the visibility of our content, one of our top priorities for next year is to become indexed on PubMed Central. In our first year, we have focused on important central themes in immunotherapy with several calls for papers and four special collections.

The collection brought together by Marianne Boes, our Regional Editor for Europe, explored ways of harnessing immunometabolism for improved responses to vaccination and other forms of immunotherapy [1]. Other collections focus on immunotherapeutic approaches to treating allergy and asthma, cellular therapies and immune-related adverse immune responses in cancer immunotherapies. These compilations are typically anchored by one or two reviews from

field-leaders including O’Carroll *et al.* [2], link to at least one of our Clinical Trials Watch series of articles, e.g. Pallett *et al.* [3] and are tied together by a short editorial overview [1]. They serve as an open-call for research papers in that area and are intended to improve the visibility and impact of all articles in the collection, as is evident from the popularity of the immunometabolism content which includes one of the most frequently accessed articles we have published so far with 6640 views [4].

Thanks to our scope covering immunotherapy in all disease areas, we are able to bring together experts to focus on shared immunological mechanisms. Addressing new challenges in cancer immunotherapy will help drive innovation in immunotherapeutic approaches in other diseases. For example, although chimeric antigen-receptor T-cell therapy is now licenced for use in blood cancers, there are still significant challenges in applying CAR-T therapy to solid cancers and research focused on overcoming these barriers is helping to drive forward the application of CAR-T in other diseases [5] and, in doing, so it generates greater insight into shared immunological mechanisms underpinning successful therapy. Another area where we are seeing fruitful cross-fertilisation between disease areas is in induced immune non-responsiveness, as is well illustrated by the Richardson and Wraith review [6] which explored a common ground between allergy and autoimmunity through a mechanistic lens, suggesting routes to developing new immunological treatments for autoimmunity.

Our Clinical Trials Watch articles are proving to be an excellent way of summarising trials activity in key areas that are fast-moving, and its flexible format allows us to publish both comprehensive reviews, like Adami and Maher extensive review of current CAR-T clinical trials in haematological and solid cancers [7], as well as detailed analyses of individual trials, for example our article from Gwyer Findlay *et al.* [8]. The series also serves as a vehicle for building links with the British Society for Immunology (BSI), whose Affinity Groups have initiated and been instrumental in the developing of most of the Clinical Trials Watch articles we have published so far. In the future, I hope we will work with other professional organisations in this way, starting with strategic partners of the BSI such as the UK-based National Cancer Research Institute who have a broad overview of cancer clinical trials activity in the UK.

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Our work with the BSI Affinity Groups has highlighted the enormous talent among early career researchers (ECRs) who are heavily involved in the groups and papers, and led to our decision earlier this year to establish a global ECR Editorial board. We have appointed 12 ECRs to our Editorial board, whom we will mentor as they gain experience of the editorial process and the judgements and decisions that lie therein. They are Eda Tenoro (Mexico), Diana Cortes-Selva and Malcom Sim (USA), Alsya Affandi, Akhilesh Jha, Danny Johnston, Elizabeth Mann, Mark Robinson, Oskar Stauer, and Caroline Weight, (UK/EU); Rebecca Chukwuanukwu (Nigeria) and Kirsten Ward-Hartstonge (New Zealand). I am looking forward to working with them and their mentors on the Editorial board next year to make sure their terms are both productive and enjoyable.

Finally, a huge thank you to our growing community. To everyone who has contributed their time and energy to ensuring the success of the first year of *Immunotherapy Advances*, including authors, readers, reviewers, and editors, to the British Society for Immunology community for their ongoing support and global impact and excellence in the field, and to the scientists and clinicians dedicating their careers to the advancement of immunotherapy.

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