Acta Haematologica Polonica 51(1) • March 2020 • 1–1 • DOI: 10.2478/ahp-2020-0001

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# Where dreams come true: CAR-T cell therapy in Poland!

**Article history:**
Received: 13.01.2020
Accepted: 15.01.2020

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Chimeric antigen receptor T cell (CAR-T cell) is a breakthrough technological advancement combining cellular therapy, targeted therapy, and gene therapy. Its principle is the *ex vivo* modification of receptors of autologous or allogeneic T-lymphocytes, which after reinfusion to patients can treat malignancies. So far, it is the best model facing concept of individualized precision medicine. After amazing progress with intercontinental clinical trials, followed by licensing by the American Food and Drug Administration Agency and European Medicines Agency, adoptive cellular immunotherapy with CAR-T cells has already changed the treatment landscape in relapsed/refractory B-cell malignancies.

On November 28, 2019, for the first time in Poland, CAR-T cells were administered to patients by a team led by Prof. Lidia Gil in Department of Hematology and Bone Marrow Transplantation in Poznań [1]. It was exactly 35 years after the first successful allogeneic hematopoietic cell transplantation in Poland, which was done by Prof. Wiesław Jędrzejczak in Warsaw on November 28, 1984.

Two other transplant centers are already prepared and accredited for this therapy. Several others will be ready in the forthcoming future. National health authorities will have to follow this unusual therapeutic opportunity and adjust reimbursement system for Polish patients.

CAR-T cell is probably the most important development in anticancer therapy [2, 3, 4]. So far, it is feasible only for B-cell lineage hematological malignancies, but the door has been opened for further research and progress. CAR-T cell era has also started in Poland.

### *Authors' contributions*

JS – the only author.

### *Conflict of interest*

The author was a participant of Novartis Advisory Board, has received lecture fee, and has participated in meetings organized by Gilead.

### *Financial support*

No financial support.

### *Ethics*

The work described in this article has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans; EU Directive 2010/63/EU for animal experiments; Uniform requirements for manuscripts submitted to biomedical journals.

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