



## Press release

### **TxCell provides update on its strengthened IP portfolio**

- **Filing of 3 new CAR-Treg patent families**
- **Issuance of 11 Treg patents**
- **Signature of licensing and options agreements with leading academic institutions**

**Valbonne, France, December 14, 2016 – TxCell SA (FR0010127662 – TXCL)**, a biotechnology company developing innovative, personalized cellular immunotherapies using regulatory T cells (Treg) to treat severe chronic inflammatory and autoimmune diseases, today provides an update on its intellectual property portfolio. In 2016, TxCell has filed three new patent families related to its genetically-engineered Treg platform and obtained the issuance of eleven additional Treg patents. In addition, TxCell has contractually secured existing and future Treg-related intellectual property from leading academic institutions.

As of December 2016, TxCell's unparalleled patent portfolio is composed of 16 patent families owned or co-owned by TxCell, including over 150 issued patents. It also includes patent families licensed (or under option) from Yeda Research and Development Co. Ltd (Weizmann Institute of Science, Rehovot, Israel), from Ospedale San Raffaele (OSR) in Milan, and from the Center for Research in Transplantation and Immunology (CRTI) in Nantes. The three most recently filed of the 16 owned or co-owned patents families relate specifically to the ENTrIA platform. The remaining 13 could be potentially applicable to both of TxCell's proprietary technology platforms: ASTrIA, composed of non-modified naturally antigen-specific Tregs; and ENTrIA, composed of genetically-engineered Tregs (CAR-Tregs).

Overall, TxCell's patents offer a wide protection across the field of therapeutic Tregs. They cover various populations of Tregs, various production methods for both non-modified and engineered Tregs, as well as a broad range of therapeutic applications in autoimmunity, inflammation and transplantation.

*"TxCell's IP strategy relies on two key pillars: carefully protect in-house innovation through a dynamic patent filing policy, and closely monitor all the work done on Tregs worldwide to identify relevant in-licensing opportunities,"* said Arnaud Foussat, Senior Vice President, Corporate Development and Head of External Collaborations & Alliance Management of TxCell. *"Thanks to this proactive strategy, we believe to be efficiently maintaining our first-mover advantage and competitive edge in the field of therapeutic Tregs. We are convinced that, in addition to our promising R&D programs, TxCell's IP portfolio is a key asset, notably to attract potential pharma or biotech partners."*

In 2016, TxCell's patent portfolio was expanded as follows:

- In June 2016, TxCell signed an exclusive worldwide licensing agreement on a broad 'umbrella' patent covering all redirected, genetically engineered T regulatory cells (CAR-Tregs) and their use in the suppression of autoimmune and inflammatory diseases. This patent originated in the Weizmann Institute of Science laboratory of Professor Zelig Eshhar, who pioneered the CAR (Chimeric Antigen Receptor) approach. The patent has been granted in Europe and is under review in the United States.
- In 2016, TxCell filed three new patent families related to its genetically-engineered Treg platform (CAR-Tregs) in Europe and in the United States. These specific patent families originate from TxCell's in-house research laboratories and cover specific CAR-Treg products as well as innovative CAR-Treg mechanisms of action. They are complementary to the broad 'umbrella' patent in-licensed from the Weizmann Institute of Science.
- Throughout 2016, TxCell also obtained the issuance in Europe, United States, Japan and Canada of eleven patents. These patents relate to manufacturing and treatment methods which are applicable to both of TxCell's proprietary technology platforms, ASTrIA and ENTrIA.
- As part of the agreement signed in April 2016 with Ospedale San Raffaele (OSR) in Milan (Italy), TxCell secured in-licensing options on existing OSR patent families relating to specific CAR engineering tools. In addition, TxCell was granted an exclusive option to in-license any future intellectual property relating to programs and products developed under this collaboration.
- As part of the agreement signed in October 2016 with the University of British Columbia (UBC) in Vancouver (Canada), TxCell was also granted an exclusive option to in-license any future intellectual property relating to programs and products developed under this collaboration. This collaboration agreement covers the development of a CAR-Treg-based cellular immunotherapy for the prevention of graft rejection in the context of Solid Organ Transplantation (SOT).
- In December 2016, TxCell has been granted an exclusive worldwide license to two patent families filed by the Center for Research in Transplantation and Immunology (CRTI, Nantes, France). These patents cover a new type of CD8+Tregs, which are non-cytotoxic and display a unique and highly immunosuppressive mechanism of action.

**About TxCell** – [www.txcell.com](http://www.txcell.com)

TxCell is a biotechnology company that develops platforms for innovative, personalized T cell immunotherapies for the treatment of severe chronic inflammatory and autoimmune diseases with high unmet medical need. TxCell is targeting a range of autoimmune diseases (both T-cell and B-cell-mediated) including Crohn's disease, lupus nephritis, bullous pemphigoid and multiple sclerosis, as well as transplantation-related inflammatory disorders.

TxCell is the only clinical-stage cellular therapy company fully dedicated to the science of regulatory T lymphocytes (Tregs). Tregs are a recently discovered T cell population for which anti-inflammatory properties have been demonstrated. Contrary to conventional approaches

based on non-specific polyclonal Tregs, TxCell is exclusively developing antigen-specific Tregs. This antigen specificity may either come from pre-existing Treg cell T-Cell Receptor (TCR) or from genetic modifications with Chimeric Antigen Receptor (CAR). TxCell is developing two proprietary technology platforms, ASTrIA, which is composed of non-modified naturally antigen-specific Tregs, and ENTrIA, which is composed of genetically-engineered Tregs.

Based in Sophia-Antipolis, France, TxCell is listed on Euronext Paris and currently has 45 employees.

## Next events

### Financial and business conference

Jan 9-13, 2017	J.P. Morgan Annual Healthcare Conference	San Francisco (US)
Jan 26, 2017	Invest Securities BioMed Event	Paris (France)

### Scientific conference

Jan 17-20, 2017	Phacilitate Leaders Forum	Miami (US)
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## Contacts

### TxCell

Caroline Courme  
IR & Communication Director  
Tel: +33(0) 4 97 21 83 00  
[caroline.courme@txcell.com](mailto:caroline.courme@txcell.com)

### Image Box – Press relations

Neil Hunter / Michelle Boxall  
Tel: +44(0) 20 8943 4685  
[neil.hunter@imageboxpr.co.uk](mailto:neil.hunter@imageboxpr.co.uk)  
[michelle.boxall@imageboxpr.co.uk](mailto:michelle.boxall@imageboxpr.co.uk)

### NewCap – Investor relations

Julien Perez / Pierre Laurent  
Tel: +33 (0)1 44 71 98 52  
[txcell@newcap.eu](mailto:txcell@newcap.eu)

## Forward-Looking Statements - TxCell

This press release contains certain forward-looking statements relating to the business of TxCell, which shall not be considered *per se* as historical facts, including TxCell's ability to develop, market, commercialize and achieve market acceptance for specific products, estimates for future performance and estimates regarding anticipated operating losses, future revenues, capital requirements, needs for additional financing. In addition, even if the actual results or development of TxCell are consistent with the forward-looking statements contained in this press release, those results or developments of TxCell may not be indicative of their in the future.

In some cases, you can identify forward-looking statements by words such as "could," "should," "may," "expects," "anticipates," "believes," "intends," "estimates," "aims," "targets," or similar words. Although the management of TxCell believes that these forward-looking statements are reasonably made, they are based largely on the current expectations of TxCell as of the date of this press release and are subject to a number of known and unknown risks and uncertainties and other factors that may cause actual results, performance or achievements to be materially different from any future results, performance or achievement expressed or implied by these forward-looking statements. In particular, the expectations of TxCell could be affected by, among other things, uncertainties involved in the development of the Company's products, which may not succeed, or in the delivery of TxCell's products marketing authorizations by the relevant regulatory authorities and, in general, any factor that could affect TxCell capacity to commercialize the products it develops, as well as, any other risk and uncertainties developed or identified in any public documents filed by TxCell with the AMF, included those listed in chapter 4 "Risk factors" of the 2015 *document de référence* approved by the AMF on May 24, 2016 under number R.16-048. In light of these risks and uncertainties, there can be no assurance that the forward-looking statements made in this press release will in fact be realized. Notwithstanding the compliance with article 223-1 of the General Regulation of the AMF (the information disclosed must be "accurate, precise and fairly presented"), TxCell is providing the information in these materials as of this press release, and disclaims any intention or obligation to

publicly update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise.