OncoQR case study

Boosting the immune response to fight cancer

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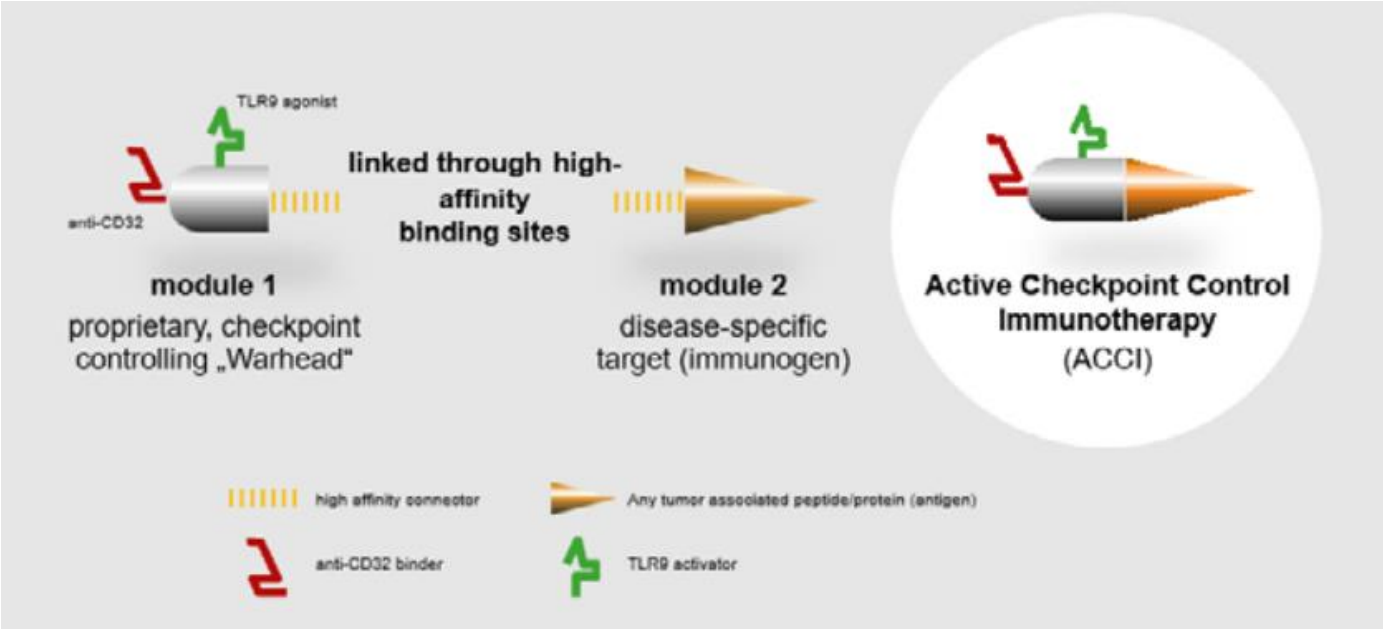
Specific Total Immune Remodulation (S-TIR)

- **Platform** for development of immunotherapy vaccines
- “Warhead“ + disease-specific immunogen
- Application of technology:
  - Cancer therapy
  - Treatment of allergies



IP and business strategy alignment

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- **Business objectives:**
  - Main: development of the first pilot product to pave the way for other products
  - Immediate: protection from competitors, negotiation with partners, financing of R&D
  - Long-term: partnering with big pharma, return on investment

- **IP strategy:** broad patent protection of main elements of the warhead (platform) + optional product patents + trade secrets
  - with broad international coverage

Platform patents

No.	Title	Priority	Patent number	Comment
1	Bispecific molecule binding TLR9 and CD32 and comprising a T cell epitope for treatment of allergies	3 March 2006	EP1996230B1 WO2007098934A1	S-TARget therapeutics GmbH Use in oncology exclusively licensed to OncoQR ML GmbH
2	Immunoregulatory vaccine	13 July 2012	EP2872169B1 WO2014009209A2 WO2014009209A3	S-TARget therapeutics GmbH Use in oncology exclusively licensed to OncoQR ML GmbH
3	Coiled-coil connector	1 September 2015	EP3344647A1 WO2017037158A1	OncoQR ML GmbH

Product patents

No.	Title	Priority	Patent number	Comment
4	Gastrin peptide immunogenic composition	21 May 2013	EP2999485B1 WO2014187743A1	TYG oncology Ltd
5	HER2/neu immunogenic composition	18 May 2015	EP3297658A1 WO2016184862A1	OncoQR ML GmbH

Business and licensing structure

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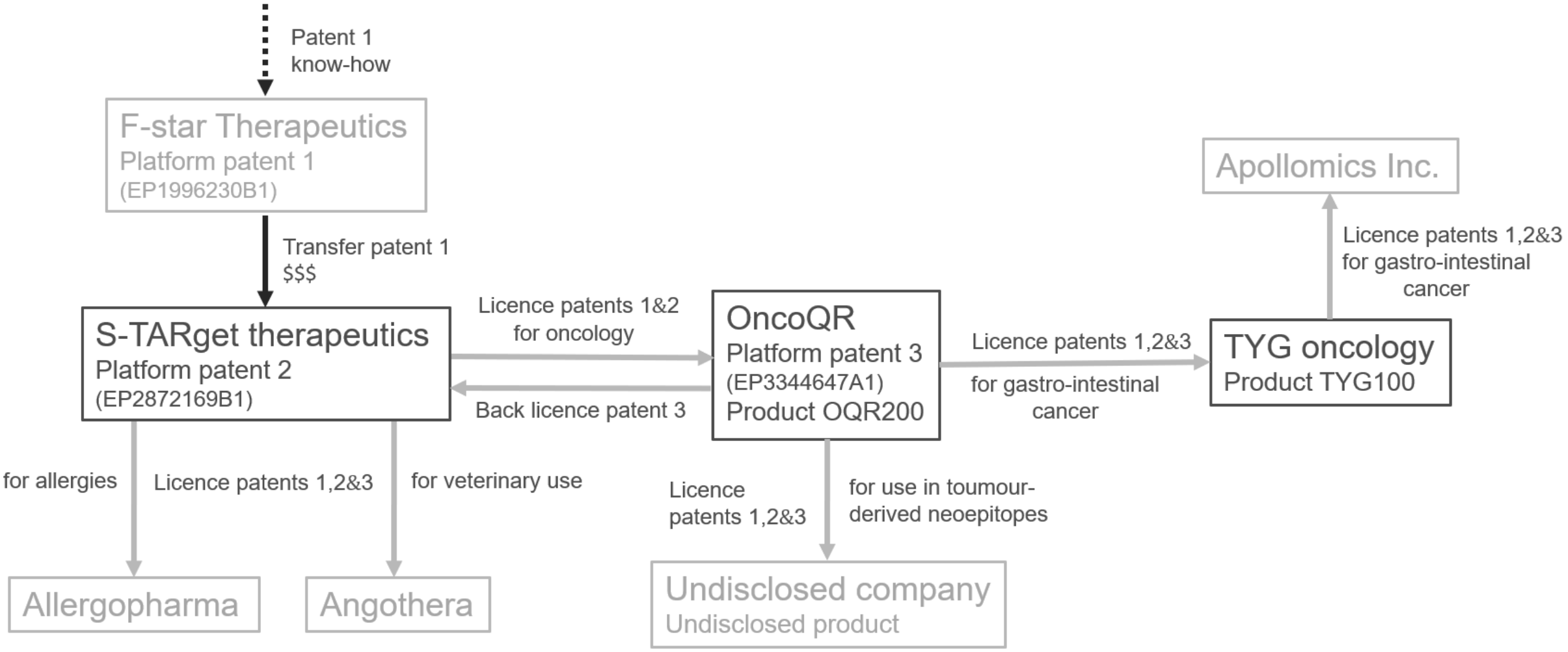

IP-protected platform advantages

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- Several pathways towards clinical phase 1 trials enabled by IP:
  - ✓ Own R&D for OQR200 (breast cancer)
  - ✓ Licensing-out for TYG100 (gastro-intestinal cancer) in exchange for a share in the company
  - ✓ Licensing-out for an undisclosed product (cancer)
  - ✓ Licensing-out for application in treatment of allergies

→ **IP plays a vital role in creating options to enter the next stage of development.**

- ✓ *Multiple pathways towards product commercialization*
- ✓ *Financing own R&D through licensing*
- ✓ *Saving patenting costs*