

# 3 Gründe als Unternehmen zu publizieren - 1

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- **Open Innovation:** Companies are assessed by their innovation potential, e.g. by academic partners, talents, scientific communities, ecosystem etc.
  - Innovation potential of a company becomes visible via publications resulting in higher reputation.
  - Publications become valuable tool to profile the expertise of a company to the scientific community and find partners, excellent scientific reputation of a company can trigger scientific exchange with academic partners or authorities
  - Publications have a much greater potential for dissemination and ensure higher citation rate / greater visibility to scientific community compared to patents
  - Publication process including peer review, open discussion helps to better understand the potential impact of results, *“A successful submitted paper tells us, that our research is on a good academic level”*
  - Publication by an industrial laboratory may provide different perspectives to those found in university laboratories
  - Scientific reputation important to remain competitive as employer and to attract best young scientists or experienced experts
  - Industrial researcher become recognized as part of academic communities, often scientists have a natural desire to share knowledge thus the ability to publish can create pride
- **Hurdles**
  - Different career options and financial incentives compared to academic scientists -> publications assume a lower priority than for academics
  - Publications require extra energy from industrial scientist e.g. for writing after work/on weekends etc.
  - Scope of research different, experiments not primarily designed to meet journal requirements, limited time / resources to pursue basic research or to follow up on additional academic questions e.g. from referees
  - Company publication / IP policies including clearance process may prevent or delay publications

# 3 Gründe als Unternehmen zu publizieren - 2

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- **Marketingstrategie:** Publications to build awareness of product; create noise, interest, and discussion
  - Publications are the most trusted and accessible source to back up claims about a product
  - Product positioning is supported by published data from the peer-reviewed literature -> Publications are the foundation on which a drug's identity is created -> evidence-base marketing
  - Publications create quotes and references for visual aids, presentations, detailed information material and for discussion with doctors
  - For Marketing most important are publications about clinical trial results but also preclinical information e.g. pathway, mechanism of action, toxicological results or other differencing study results
  - Speed, prestige (impact factor), audience/readership vs. product and likelihood of acceptance are important for selection of appropriate journal
  - Well defined publication plan (after Phase 1) -> publication may have impact in share prize
- **Open Access Publication to reach scientifically interested patients directly**
- **Publications for self-marketing (e.g. Biotech) to generate interest of investors, big-pharma or to stimulate share prize**

# 3 Gründe als Unternehmen zu publizieren - 3

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- **IP-Strategie:** To be approved for patenting, an idea must be new, useful, non-obvious and not prior art.
- **Defensive publication is an IP strategy to prevent others from obtaining a patent by disclosing otherwise patentable information with the aim to create prior art**
  - Cost of patenting outweighs the benefit of the patent monopoly e.g. non-core business
  - Extremely time-saving compared to a patent procedure
  - Published technical disclosures can protect freedom to operate by ensuring continued access or by preventing competitors from filing patents in specific areas
  - To link in the public eye a technology with a specific company
  - In combination with patent: e.g. patent of core technology plus defensive publications of the surrounding, related innovations, thereby reducing the likelihood that others will be able to obtain dominant patents.
  - Publication without peer-review via pre-print server very fast way to generate freedom to operate e.g. competitive area, COVID-19 treatment options

# Risiken durch Publikationen

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- **Lack of reproducibility is an important issue**
  - *Nature 2016, 533, 452-454: “More than 70% of researchers have tried and failed to reproduce another scientist's experiments, and more than half have failed to reproduce their own experiments. Those are some of the telling figures that emerged from Nature's survey of 1,576 researchers who took a brief online questionnaire on reproducibility in research.”*
  - *The Scientist 2015: “Half of basic science studies cannot be replicated, according to a new analysis – to the tune of \$28 billion a year in the US.”*
  - *BBC News, January 2020: “Nobel Prize-winning scientist Frances Arnold retract paper because the results were not reproducible”*
  - Risk to lose reputation or in worst case to be forced to take product from market
- **Limited publication of negative results**
  - Increasing pressure for academic scientists to publish in high impact journals
  - Pharma obligated to publish also negative study results but)
- **Ensure that publications meet basic Research Integrity requirements**
  - GRP and data integrity management system implemented, lab journal audits, trainings, awareness,
  - Dedicated position in each country, global network, best practice sharing etc.
- **Leakage of highly sensitive information through publication / timing of publication**
  - Clearance process involving management, patent, publication officer etc. in place
  - Internal auditing of compliance