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# Limits of Patentability

## Plant Sciences, Stem Cells and Nucleic Acids



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# Limits of Patentability

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# Preface

This is the third volume of SpringerBriefs in Biotech Patents. The overarching topic in which the three articles comprised herein have in common relates to the Limits of Patentability—a topic which is often raised when it comes to Biotech patents.

Until recently, newly created novel embodiments in Biology were excluded from patentability, as the classical breeding methods used therefore relied on the random distribution of genetic matter, and thus did lack reproducibility—which is seen as one condition required to confirm technicity, which again is, at least in Europe, a *conditio sine qua non* for patentability.

With the rise of biotechnological methods, such as restriction enzymes, PCR, transfection methods, and the like, a molecular toolbox is now available which provides reproducibility with a sufficiently high degree. Patent applications related to these methods do therefore comprise a clear technical teaching—with the result that technicity is no longer denied for most biotechnological methods.

However, biopatents do also have to face challenges on other grounds. In many industrialized markets a strong public movement exists not only against biotechnology as such (with an emphasis against so-called “green” biotechnology), but in particular against patents for biotechnological inventions. As regards the latter case it is often overlooked that patents do not provide a right to practice of the protected invention, but only an exclusive right under which the patentee can block others from using said invention.

Some disciplines in biotechnology do, without doubt, raise new ethic questions on which most societies have no consensual answers yet. However, in their helplessness, societies tended to seek answers on these questions in the patent law. As a result, the number of special regulations which, for example, the European Patent Convention provides for biotechnology inventions exceeds those for any other discipline.

However, the mere exclusion of particular types of invention from patentability due to ethical concerns does not automatically result in a ban of these inventions from being practised. The public discussion around the exclusion of particular biotech inventions from patentability is thus a mock battle.

The present volume tries to give a state-of-the-art overview of patentability issues in plant biosciences, stem cells, and nucleic acids. The authors hope to create a better understanding of these currently debated issues, and to help the reader to objectify his opinion on questions of patentability in these technical disciplines.

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