
PIPE Pharmaceuticals

Technology offers Natural products

These technology offers originate from the different partners of the project PIPE. If you are interested in one or more of these offers, please contact the responsible person named below. We are looking forward providing you more detailed information.

New plant extract with immunosuppressive effect (08017 JG)

Plant extract are used in nearly all cultures for medical treatment. Recently a new extract was developed which opens unique possibilities in prophylaxis and treatment of inflammatory and/or neurological diseases such as Multiple Sclerosis. In first experiments in mice this plant extract showed immunosuppressive effects, correlating with experimental data obtained beforehand (e. g. abrogated proliferation of primary T-cells). The extract itself could be used as dietary supplement but also we search for partners for identification of the active compound and further development.

Status: European patent was applied for.

Synthesis of Myrtucommulon A and analogues (2006/3

Myrtucommulon A is known for more than one pharmaceutical indication: it is anti-hyperglycemic, antibacterial, analgetic and anti-inflammatory. Not long ago a new chemical way of synthesis for this natural compound was developed which of course also provides the possibility of synthesis of analogues and thus the search for improved active agents.

Status: German and international patent was applied for.

Genes encoding the biosynthetic pathway for the production of etnangien (2007/31)

Etnangien is an antibiotic which inhibits the activity of RNA-polymerase of bacteria. The genetic coding sequence for etnangien and hence of course the products from biosynthesis of these sequences are now available. A method employing them in different micro-organisms, preferably in bacteria, was developed as well. Not only the original sequences but also modifications can be used for the fermentative production of etnangien analogues which, to some extent, proved more stable than the natural compound.

Status: European patent was applied for.

Synthesis and biotransformation of bioactive pre-tubulysin and analogues (2008/21)

Tubulysins are peptides which are produced in some myxobacteria as a metabolic byproduct. They have a deadly effect on microtubuli, the cell transportation system, that are involved in cell division too. Pre-tubulysin, which can be seen as a common preliminary stage of all tubulysins, can not only be used in this function. It also shows high biological activity itself thus an application in the field of anti-cancer therapy is possible, additionally a further conversion to tubulysin is no longer necessary.

Status: European and international patent was applied for.

Genes encoding the biosynthetic pathway for the production of Argyrins (2008/21)

The invention offers an alternative synthesis providing the amino acid sequences of the synthetic pathway enzymes participating in the production of pre-Argyirin and therefore Argyrin. These enzymes can be used for the production of Argyrin in a cell-free reaction composition (in solution or as immobilized enzymes e. g. bound to the surface of a carrier) as well as a cell-bound reaction. Furthermore, the nucleic acid sequences encoding the synthetic pathway enzymes were presented. They can either be used in site directed mutagenesis within natural producer strains of Argyrin, or in other micro-organisms as host cells for the production of Argyrins.

Status: European and international patent was applied for.