

COMPANY INFORMATION

Company name	Tectum LLC (UNN's Chemistry and Biology Faculties)
Project name	Tectum - hemostatic solution
Project leaders	Prof. Larissa Smirnova, CTO Mikhail Gorshenin, CEO
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Company/project history	Chitosan has been studied at UNN for more than 20 years. Hemostatic solution project began a year ago.
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PROJECT INFORMATION

Description of technology/product

The project aims to develop a new effective hemostatic solution for external use in stopping bleeding at any level of severity. Tectum is a polymer composition based on chitosan and comprising a number of additives (the latter are our know-how). The existing gel prototype arrests venous hemorrhage (as shown in mice tests) within 20-40 seconds without any other action such as putting pressure on the wound. The solution steps up natural blood coagulation. In addition, the gel manifests wound-healing properties.

Diagrams and photos



Fig. 1 Gel prototype



Fig. 2 Prototypes



Fig. 3 Gel prototype

Added value

Consumer value for victims with a variety of heavy injuries is life preservation and the ability to help both himself/herself and other person. No special skill is required.

Current status of technology/product

- Various lab prototypes for gel and gel-saturated tissues created;
- Tests of preclinical trial level conducted (not certified);
- Tectum LLC, a small innovation company with UNN as a shareholder, being registered.

Key advantages

- Rapid hemostatic effect-average of 30 sec. (venous hemorrhage);
- Possesses wound-healing properties;
- Possesses antibacterial properties;
- Effective on burns.

Competitors

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|--------------------|-----------------------|
| Global market: | Domestic market: |
| – Celox (UK); | – Hemostatic sponge; |
| – QuickClot (USA); | – Hemostatic plaster. |
| – Hemcon (USA). | |

Potential markets

- Ambulances, paramedics vehicles;
- First aid kits for cars;
- Personal first aid kits for military personnel;
- Burn centers;
- Household use.

Scientific publications and patents

Six scientific articles on the topic published; know-how registered at UNN

US contacts sought

- hemostatic product makers;
- contacts at medical institutions conducting preclinical and clinical trials.

Objectives for trip to US

- showcase and promote the company and the innovation product to international audiences;
- look into US market potential;
- find partners/investors.