# Hemosynthetics

Hemosynthetics is the field related to the study and applications of Nekovalkyrja blood. It is only found within the Yamatai Star Empire.



In the most basic of definitions, Hemosynthetics is a branch of hematology, or the study of blood. From the earliest days of PNUgen Corporation to the modern Ketsurui Zaibatsu the field of Hemosynthetics is expanding. It no longer solely relates to the creation of biosynthetic life forms like the Nekovalkyrja and Minkan, but it includes the development of technologies like the old Hemosynthetic Conduit System that was recently, in YE 42 upgraded to the Nodal Liquid Conduit System. The field applies to Medicine in the delivery of medical care to Nekovalkyrja and Minkan, the creation of related equipment like the Hemosynthetic Reconstruction Tube.

The field of study and development of technology related to Hemosynthetics is at the heart of the Yamatai Star Empire. The field is expected to continue to expand as new Technology and applications are developed for both the Star Army of Yamatai and civilian populations.



## Ketsurui Zaibatsu

Ketsurui Zaibatsu a mega-corporation has inherited the responsibility of protection and governance over this prized technology from the original PNUgen Corporation. The technology behind Hemosynthetics is highly restricted and protected as it is the literal lifeblood behind the Yamatai Star Empire.

## Applications

There are many applications of hemosynthetics.

- The body synthesis and creation of new Nekovalkyrja and Minkan.
- The development of new and future Nekovalkyrja models.
- The study and application of medicine for Nekovalkyrja and Minkan.
- The continued advancement of military technologies for the Star Army of Yamatai.

## **Hemosynthologists - Specialists and Scientists**

Those who study and specialize in hemosynthetics are called hemosynthologists and they only exist within Ketsurui Zaibatsu.

Many medical providers and practitioners in the Yamatai Star Empire and the Star Army of Yamatai have a basic knowledge of hemosynthetics but they rely on the expertise of hemosynthologists and the systems they develop to do their jobs.

## Hemosynthetic Fluid

Hemosynthetic Fluid, also known as hemosynth is the blood of Nekovalkyrja. It is a synthetically constructed blood using femtomechanical assembly to create a highly complex biosynthetic genome. While many of the compounds that compose the genome bear similarity to those found within most biological life, the hemosynthetic fluid has additional synthetic compounds, active femtomachinery, molecular encryptions and a protected self-defending matrix that prevents it from being manipulated or copied in a malicious way.

The active nature of the biosynthetic genome makes it highly resistant to viruses, prions, and other DNAmalicious particles or entities. The coding and construction of the genome are defended by the femtomechancial element that is involved in every aspect of its creation all the way until its deactivation or transfer to another body. In many medical applications, when damage occurs on a hematological level the exposure of the system to sterile or fresh hemosynth can restore or rebuild most structures and functions. The built-in defense application can also destroy the genome in the event of tampering or manipulation by unauthorized parties.

In addition to the technological aspects of hemosynthetics already introduced above, the hemosynthetic

material provides an active learning schema by which there is an active record of molecular and particulate exposure and experience that reports back at the end of termination that can provide accurate snapshots in the history of the materials development, environmental exposure and other experiences. In other words, the blood provides feedback towards future evolutionary development. The memory or imprint archive works on the same principle as MEGAMI in terms of gravitationally accelerated particle memory.

Above the molecular and genetic level, the hemosynthetic fluid works the way most blood does in the sense that specialized cells are differentiated from stem cells or the basic origin schema. Just like a human that basic stem cell evolution takes place inside of the Nekovalkyrja's bone marrow.

This differentiation, combined with the femtomechanical nature of hemosynth is what caused the evolution of technological breakthroughs such as the old Hemosynthetic Conduit System and Nodal Liquid Conduit System. Hemosynth's properties were applied to deliver femtomechanical application to repair materials like Yamataium, and even fabrication technologies. When combined with energy-matter conversion technologies, the application for hemosynth expands far beyond its original intended uses.

#### Malignacy

Due to the nature of hemosynth, malignancy does not occur. The self-repairing function and/or the introduction of sterile hemosynth will always provide a definite progression towards repair and restoration. This means that Nekovalkyrja cannot be affected by cancer.

#### Hemosynthesis

Hemosynthesis is a term that refers to the creation and active nature of hemosynth.

### **Related Information**

Documentation and related systems.

- Universal Hemosynthetic Fabrication System Type 43
- Nodal Liquid Conduit System

#### Guides

• Technicians Guide To Hemosynthetics

## **OOC Notes**

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