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Nepleslian Reds Cloning

The Nepleslian Reds, have a unique history tied to the use of cloning and genetic engineering. Nearly wiped out by the Democratic Imperium of Nepleslia in YE 29, the use of this technology has allowed them to spring back from their defeat. This article is an overview brief on the Reds' use of cloning.



1)

History

Centuries ago humans first used cloning on Damasica (Neo Kohana) shortly after beginning to spread themselves into the Kikyo Sector after their arrival on Rok'Veru. Created as a cheap and disposable labor force for humanity, they eventually were transformed into the base of the military by the Crimson Dawn. Once this occur, clones became commonplace and tradition for humanity within the sector. ²⁾

3)



Today in the YE era the practice of using clones as the primary source of labor and soldiers has all but disappeared. Clones historically consisted of only males. This made maintaining a healthy gene pool

difficult with the lack of children being produced. The arrival of the ID-SOL centuries ago only made the situation worse for Nepleslians with the Super-Y chromosome they possess ensuring only males were reproduced from a dwindling female population. While Nepleslia has moved away from cloning as the main means of population growth, the Nepleslian Reds remain the only known group of Nepleslians that maintain the ancient practice.

With their smaller numbers, cloning became a necessity to rapidly replace their numbers. Constantly at war and eventually increasingly losing territory to the Nepleslian Greens, the Reds could not rely on a natural population to recruit/conscript from. Natural reproduction did occur among the clones of the Nepleslian Reds, but they were often orphaned or sent off to orphanages run by charities as the Reds knew babies and children had no place among them. The thought was they could always reclaim them once they had finally freed Nepleslia from the grips of the Green. The Fall of Kennewes to the Greens in YE 29 put an end to that.

Between the losses on Kennewes and post-Kennewes clean-up operations within Nepleslian space, the Reds that finally ended up at Fujiko numbered in the tens of thousands. Some estimate as high as 50,000 clones made the initial landfall, but the Reds were not known for their record keeping abilities, especially during the post-Kennewes chaos.

Now essentially colonists like their human ancestors of Damascia, 2.5 million new artificial Nepleslians over the next 5 years based on the surviving 50,000 individuals and what surviving digital EverRed genetic depositories that were bought along. Artificial Nepleslians were chosen as a means to set them apart from the Greens and their main non-combat status. A huge focus was on individuals with industrial and medical skills as those were much more needed than expert marksmanship.

Business-savvy Yamataians quickly took advantage of the situation to provide resources and jobs to the newly arrived Reds. With an initial investment of purchased Nepleslian cloning equipment, building resources, and training; they got to reap all the benefits of mining a resource-rich world without needing to do the work.

In YE 36, after becoming established on Fujiko and Rufusland, a new generation of Artificial Nepleslians began to be produced. While one could be seen as a dedicated combat model, Generation 2 models were more adapted to the environmental conditions of the worlds within the region.

Technologies

The Nepleslian Reds' reliance on cloning has made them experts in the field. While the Fall of Kennewes was a major reset for them, it has not stopped them from finding new and innovative ways to improve their society. A key focus has been to improve but maintain their humanity.

The Reds use Artificial Nepleslians and clones interchangeably. Though clone is often used to reference a spare of an existing individual that remembers and acts as its predecessor. Artificial Nepleslians are new individuals of a template given the choice of how they will form their personality.

Bioroid has also been used for simplified genomes meant for true rapid manufacturing. As of YE 45 only a few prototypes of organic bioroids (unlike the biosynthetic bioroids of Yamatai) have been produced.

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Genetic Engineering

The Nepleslian Reds are tolerant of other species that respect their way of living. But this is not extended to Mutants, the "products" of the inherent "manliness" of the Nepleslians. Due to their unstable DNA, the Reds have painstakingly used genetic engineering to get rid of abhorrent DNA that contributes to this instability.

4)



Xeno DNA that has been deemed beneficial has been known to be retained and superficial traits are often ignored/restricted to genetic templates. Many known xeno species (such as the Plebeians) are the source of genetic engineering adaptations and modifications to achieve desired results. Though the Reds will not be the first to acknowledge this.

Growth Techniques

Early clones relied on the production of embryos to provide the template of a clone and then accelerate their development with genetic engineering to adulthood within months. While it was acceptable at the time, the demands of war required clones to be battle ready at an increasing rate. Needing to ensure the body doesn't cook itself with an inability to address waste heat generated, nanites increasingly became a common means to build individuals before the biological systems were fully "turned on".

Genetic engineering plays a pivotal role in expediting the process of cell division. Under normal circumstances, a cell goes through several stages (Interphase, Prophase, Metaphase, Anaphase, Telophase, and Cytokinesis) before it divides into two daughter cells, a process which can take anywhere from 10 to 24 hours in human cells. However, by carefully altering specific genes responsible for the

regulation of the cell cycle, scientists can significantly speed up this process. Key genes, such as those controlling cyclin-dependent kinases (CDKs) and other regulatory proteins, are modified to reduce the 'checkpoints' and 'waiting periods' in the cell cycle, thereby allowing cells to divide at a vastly accelerated pace.

Alongside the modifications to the genetic code, nanotechnology is utilized to further enhance and support rapid cell division. Nanites are introduced into the artificial amniotic fluid where the clone grows. These nanites play multiple roles to facilitate and manage this supercharged growth. Some nanites function as cellular repair units, monitoring the rapidly dividing cells for any signs of errors or damage, and swiftly repairing any issues they detect (preventing cancer). Other nanites work as resource distributors, ensuring that the dividing cells receive the nutrients and energy they need for their accelerated growth. They also assist in waste management, removing any metabolic by-products that could hinder the cell division process.

The Reds make use of the same method with their artificial Nepleslians. Though instead of drawing breath after they are removed from the vat, an oxygenated amniotic fluid is used to allow the body to function normally as soon as it can. Multiple umbilical cords ensure waste does not enter the fluid once liquid breathing commences. The body is also typically covered in a translucent, biodegradable cloth that shows just enough to ensure proper growth of the body but also provides some modesty to the individual.

The Reds currently make use of the Genesis Bioforge which takes 2 weeks to manufacture individuals. A biogenic fluid known as Protogenesis Fluid is the preferred medium of growth the Reds use.

Training Methods

Even in the earliest days of cloning, there was always a major problem for them: lack of maturity. Born as full adults, they do not experience the years of life natural-born humans experience. To address this, memory imprint has been the primary source of giving clones the "human experience" and the skills they require.

Memory imprints are created by scanning and copying the brain patterns of an individual. This copy is then copied into the mind of a clone in the form of sleep training. When they are awakened, they will not only have the skills of the individual (but not the required muscle memory), but they will also understand what it is to be human from the eyes of the individual.

But it was discovered that the emotional memories of the donor were also being transferred to the clones. Having no understanding of emotions and how to deal with them, early clones often degenerated mentally. To address this, the portions of the mind responsible for emotions are regulated. The level and how permanent this regulation is depends on the manufacturer of the clone.

More recent technologies like EchoBriefs and Cerebral Echo Memory Implant System (CEMIS) protocols have been developed to limit the need to suppress the emotions of newly made individuals.

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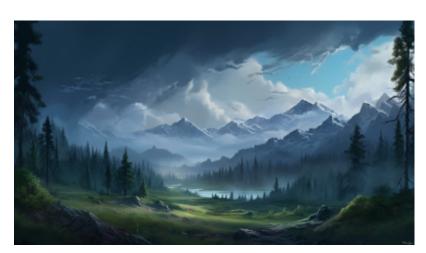
Artificial Nepleslian Models

Starting in YE 36, the Reds began making individuals optimized for living on certain worlds they found colonized. It wasn't long after that that additional models optimized for certain tasks and occupations soon began to arrive after the Raijin Type was released in the same year. While the stated reason for their existence is to optimize for the Reds' economy, the adaptations have clear dual-use applications should they be recruited into a military force. More information can be found here.

Fujiko Region Adaptation

Living on a high-G world with a unique atmosphere and a chilly average surface temperature, the Reds experienced much hardship as they settled Fujiko IV in YE 30. The adaptation is applied to all Nepleslian Reds post YE 36.

5)



The Regional Adaptation consists of the following:

- Denser Musculoskeletal System (1.5x baseline)
- Stronger heart (1.1x slower average heart rate)
- Adaptable metabolism (increases when exposed to cold)
- More efficient anti-oxidant production
- Retention and expansion of infant nheat producing brown fat cells
- Stronger circulatory system with intertwined arteries and veins.

When a model provides a similar augmentation, the model's genetics are dominant. Care must be taken when overexerting Artificial Nepleslians as they can overheat easily. Use of quick cooling/heating clothing is highly recommended at all times.

Artificial Nepleslian Defects

To facilitate the rapid growth of artificial Nepleslians, many "corners". One of them was how various parts of cells operated to ensure they did not cook themselves from all of the waste heat generated from fast

growth. One of the changes was the way cells generate new pribosomes.



With the production of proteins needed for growth and repair being in massive demand, scientists needed to irreversibly change where genes responsible for the production of ribosomes to one of the extra 6 chromosomes Nepleslian Red artificial Nepleslians possess. But the protection of the whole DNA is lackluster at best, resulting in rapid decay as cells split and are replaced. This was deemed acceptable because of the speed advantage given. But When the body reaches maturity, the body is left to manage itself with this "write limitation". As a result, Artificial Nepleslians have a very short lifespan of 5 years (premature aging and eventual death).

This can be avoided with yearly "life extensions" where nanites are injected and refresh the degraded portions of the extra chromosomes most vulnerable to degradation. The main chromosomes are also checked, but normally only to check against uncontrolled cell growth. Any premature aging and other complications gained from missed checkups are not reversible.

It is rumored that the defect was purposely not fixed to ensure loyalty to the faction. Dissatisfied Reds point to the lack of the defect with Lily-Type Artificial Nepleslians. The reason for it is an additional number of chromosomes that stabilize the DNA more and many nanite augmentations that compensate for the deficiency.

Artificial Nepleslian Manufacturers

Just as Nekos were manufactured by PNUgen Corporation before the Star Army of Yamatai took over and modern ID-SOLs are manufactured by Nepleslian Arms and Munitions, Artificial Nepleslians are also produced by corporations (under license or the creator). Below are the current known manufacturers as of YE 45.

Athena Foundation

The Athena Foundation, a component of the Nepleslian Research and Manufacturing Advanced Works

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Division, spearheaded the creation of the Gen1 and Gen2 Artificial Nepleslians. Named after a goddess of wisdom and warfare, the Athena Foundation embraces its namesake's attributes, combining advanced scientific knowledge with the practical demands of a resilient population.

After reaching the initial production goal of 9 million individuals in YE 40, the Foundation has since maintained a steady, albeit reduced, production rate. This decision accommodates population management and allows continuous research and development of new Artificial Nepleslian models.

Advancer Enterprises

In the spirit of cooperation, Advancer Enterprises, a constituent of the Ryu Keiretsu, collaborates closely with the Athena Foundation. Their combined efforts led to the creation of the Lily Type Artificial Nepleslians in YE 43.

As the second corporation to employ the Reds' Artificial Nepleslian class of Nepleslian clones, Advancer Enterprises primarily leverages this workforce to support their corporate endeavors, notably in frontier expansion projects. The Lily Type Artificial Nepleslians are utilized both as part of the workforce and as colonists, contributing to steady growth of the keiretsu.

Usage

Artificial Nepleslians play a crucial role reminiscent of their predecessors, serving primarily as the backbone of the labor force and the military. Their rapid manufacture allows for a swift response to changing societal needs, particularly in areas where specific job experience isn't paramount.

In the interest of population sustainability, measures have been put in place to ensure a more balanced biological sex ratio (although initially infertile) among the Artificial Nepleslians. This decision facilitates natural population growth in parallel with the ongoing manufacture of individuals, creating a population that echoes the resilience and determination of the Nepleslian Reds.

OOC Notes

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Approval Thread:

https://stararmy.com/roleplay-forum/threads/nepleslian-reds-cloning-article.70694/#post-439391

1)

Nepleslian Reds in dismantled M1 Demon Power Armor after Kennewes Offensive.

2)

Pre-History - Before YE 01

3)

Human clones doing a promotional shoot.

4)

Pair of Nepleslian Research and Manufacturing scientists in conference.

5)

Taiga Forest within the Fort West Region

6)

A Nepleslian Red Artificial Nepleslian that missed numerous check-ups

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