



By T. Carter Ross



A NEW MAGIC COLLEGE FOR GURPS

[GURPS](#) offers a wide array of shapeshifting options, but the Shapeshift spells detailed in [GURPS Magic](#) and [GURPS Grimoire](#) are limited to transmorphing humans and demihumans into various animal forms.

Even Merging Shapeshift (p. G12) and Great Shapeshift (p. G12)

significantly limit the modifications wizards can make to their own or other's bodies.

To create a truly wondrous creature with magic -- a human adapted to subaquatic life or a bear that can wield a sword -- requires something greater than Shapeshifting.

Gene weaving, the magical manipulation of DNA, makes possible everything from existing shapeshifting spells to magical cloning and the magical equivalent of nanotech genetic surgery.

[GURPS Bio-Tech](#) outlines the possibilities for wholesale genetic modification via nanotech viruses, such as the Proteus Nanovirus (p. BIO77) and the Metamorphosis Virus (p. BIO79). These viruses -- along with the rules for genetically engineered animals (p. BIO98-105) -- provide the basis for the Gene College of magic and the gene weaving process.

Gene weaving is not for dabblers. It requires Magery, as well as much time and energy. Unusual physical components should be required. The changes wrought by gene weaving are permanent unless reversed by another gene weaver or a Great Wish (p. M44).

Gene weaving can be added to a campaign as a standalone college, a la Tech Magic, or its

spells could be divided among the Body Control, Animal, Enchantment and Healing Colleges.

If treated as a stand-alone college, the Gene College should be divided into five sub-colleges:

- Sub-College of Cloning & Growing: Create Chimera (PY29/43), Doppelganger (p. G40), Homunculus (p. G42), Simulacrum (p. G39), and Strike Barren (p. G14).
- Sub-College of Gene Weaving: Adapt Breathing, Adapt Skin, Affix New Limb, Musculate, Pheromones, Reform Limb, Reform Skeleton, Resequence, Sculpt Flesh, and Seek Genome.
- Sub-College of Genetic Healing: Boost Drug, Cure Addiction (p. G55), Cure Radiation (p. G105), Dominant Gene, Dwindle Tumor, Halt Aging (p. M51), Metastasize, Relieve Addiction (p. G54), and Youth (p. M51).
- Shaping & Forming: Great Shapeshift (p. G12), Merging Shapeshift (p. G12), Partial Shapeshift (p. G11), Permanent Shapeshift (p. G12), Plant Form (p. M46), Plant Form Other (p. G90), Shapeshift (p. M25), and Shapeshift Other (p. M25).
- Sub-College of Uplifting: Awaken Self-Knowledge, The Brain!, and Uplift.

Alter Body (p. M28), Enchant (p. M42), Golem (p. M44), and Lengthen Limb (p. G18) are closely associated with the college and are prerequisites for several Gene College spells.

At higher Tech Levels (TL6+), Genetics, Surgery, Biochemistry, or other science skills can be prerequisites for successful gene weaving, at GM discretion, and such skills may add a bonus to casting these spells. Additional spell prerequisites or unusual physical components may be required for some modifications, after all, the new genetic material must come from somewhere.

Two of these spells -- Resequence and Seek Genome -- are similar to Manipulate DNA (PY29/43) and Sequence DNA (PY29/44) from [*Bio-Tech Designer's Notes*](#), however where Manipulate DNA and Sequence DNA provide bonuses to the use of Genetics (Genetic Engineering) skill rolls, Resequence and Seek Genome direct the flow of magical energy to effect the genetic change. This allows for more immediate results than are achievable with traditional genetic engineering; changes can be made to adult individuals instead of to the next generation.

Gene weaving spells allow the caster to add at least one advantage (Amphibious, Pressure Support, Fur, Winged Flight, etc.) to the subject. Just like the Metamorphosis Virus, each advantage added requires one mage day to complete the transformation. The process also requires at least an hour of prep time for the caster to determine which traits must be adapted.

For example, a chimpanzee could be adapted to live in space by adding +2 ST, +1 HT, Vacuum Support and Wings. Since the Vacuum Support advantage (p. CI70) encompasses Doesn't Breathe and three levels of Pressure Support, a total of eight advantages are being added. Preparatory spells and cosmetic changes will add another half day to the process. The total time to modify the chimp would take some 68 mage hours, or about eight-and-a-half mage days.



During that time, the mage would need to cast Seek Genome at least six times to determine which genes control ST, HT, pressure support, breathing, and wing development; Resequence once, but maintain it for the entire project; Affix New Limb for one day; Musculate for one day; Reform Skeleton for two days; Adapt Skin for three days; and Adapt Breathing for one day. Total energy cost for the modifications would be 1,952. At nearly 30 points per hour, creating this biomorph within eight-and-a-half days would take five skilled gene weavers working together and drawing heavily upon powerstones or some other power source.

Weeks would be added to the time if modifications to the intelligence or self-awareness of the chimp were made.

If need be, a wizard could extend the time for the transformation, reducing the daily power consumption, but adding other risks. If the biomorphing process takes longer than the sum of the subject's HT and the base number of days, a roll vs. HT is required each extra day to avoid unintended mutations.

Because of the time needed to reweave the genetic code, a sentient being genetically modified must be either completely willing or completely subdued. Beware, some magical means of subduing a subject, such as Suspend Animation (p. M50) slow bodily processes and will hinder gene weaving.

Similarly, gene weaving cannot work on undead creatures. Magical energy may keep these

beings ambulatory, but cellular and genetic activity are dead.

The energy costs for gene weaving may seem steep, but these changes are enchantments, and permanent modifications are being made to the subject's body. In effect, the biomorphs created by gene weaving are magic items.

These new creatures will have a magical aura, unless it is masked with Conceal Magic (p. M61), Scryguard (p. M61), or a similar spell. However, Know True Shape (p. G58) would not reveal anything about the nature of the biomorph: Its magically augmented shape *is* its true shape.

As magical constructs, gene woven biomorphs may be affected by different levels of mana.

If a gene woven individual enters a no-mana zone, it is up to the GM as to what happens ([*GURPS Fantasy Folk, 2nd Edition*](#), p. 13). However, it is suggested that gene woven characters be unaffected by a lack of mana. The changes are physical despite being the result of magic.

Above normal mana levels, however, may cause magically augmented genes to mutate. The effects should be slow, but noticeable. Perhaps the genetic modifications slowly unweave, or new, stranger mutations may occur. A human genetically modified with fish DNA to breathe water, for example, might begin to transform into a fish or a Fishman (p. FF70). Or she could contract The Innsmouth Look ([*GURPS CthulhuPunk*](#), p. 48).

Although these spells are not Tech Level-dependent per se, the current state of medical knowledge in a campaign should affect how gene weaving is implemented. In a [*GURPS Fantasy*](#) campaign, for example, a mage may be manipulating DNA, but, as far as he knows, he is balancing the four humours. This could lead to some unusual or less-than-effective genetic changes.

Crossovers

Gene weavers -- or at least the results of their magic -- can find a home in any type of campaign, although they are especially well suited to hybrid magic/cyberpunk campaigns.

In a [*Fantasy*](#) campaign, magi could use gene weaving to create servants and guards, a la the Wicked Witch of the West and her Winged Monkeys in *The Wizard of Oz*. Or humans might use gene weaving to better live in different environments, such as underwater.

Similarly, a space campaign with magical elements could replace technology-based

genetic manipulation with magic. Or the two could be in competition.

In a magepunk world like David L. Pulver's Merlin from [GURPS Time Travel Adventures](#), a megacorp like Manadynamics could use gene weaving to help the U.S. government overpower Soviet necromancers.

In Merlin, Manadynamics gene-woven biomorphs could live alongside natural Chimeras, metal or plastic golems, and magically powered computers and cars. Go-Limbs (pp. MIT69-70) might be available for use as magical prosthetics.

In a World of Darkness-based game, where would gene weavers fall in the order of things? Could their spells be used to push the agenda of the Technomancy or would it undercut them the same way the Virtual Adepts have? One word: [CthulhuPunk](#).

[GURPS Horror](#), particularly [GURPS Atomic Horror](#), crossovers could be run with magic taking the place of science run amok.

Although the gene weaving process is difficult to undo, some [GURPS Espionage](#) agencies might use such magic to help place agents far behind enemy lines, particularly in a [GURPS Space](#) or *Fantasy* campaign where multiple races would be encountered.

Finally, what would the [Illuminati](#) or [Warehouse 23](#) do for or with this sort of magic?

Ozian Winged Monkeys

ST: 16	Move/Dodge: 5#/7	Size: 1
DX: 13	PD/DR: 1/1	Weight: 160 lbs.
IQ: 6	Damage: *	Origin: SF
HT: 15	Reach: C	Habitat: -

Component Spells: Affix New Limb (x2), Enslave, Musculate, Reform Skeleton, Resequene (maintain for 6 days), Sculpt Flesh, and Seek Genome (x3).

Modifications made: HT +1, DX -1, wings, heavier fur, claws, and prehensile tail.

Created by the Wicked Witch of the West as loyal servants, these flying monkeys appear to be a hideous mixture of a raven, a bat and a monkey. Bat-like wings sprout from their shoulder blades, allowing the monkeys to fly with an aerial move of 14, and their bodies are covered with shaggy fur that provides DR +1 and PD +1.

Unlike the chimps from which they were grown, the Ozian Winged Monkey has a prehensile tail that can be used to grasp items, but not to attack. The monkeys have claws that do 1d+1 crushing damage. Like normal chimpanzees, they may bite for 1d of cutting damage.

Ozian Winged Monkeys are controlled by the Wicked Witch of the West via an Enslave spell (p. M68), allowing her to see what the monkeys see and to direct them mentally.

Given their hideous appearance, and the fact that they usually swarm in large packs, a fright check must be made upon first spotting Ozian Winged Monkeys.

As a biomorph racial package, Ozian Winged Monkeys cost 88 points:

ST +6 (80 points), DX +3 (30 points), IQ -4 (-30 points), HT +5 (60 points).

Racial Advantages: Prehensile Tail (5 points), Claws (15 points), Sharp Teeth (5 points), Thick Hide (28 points), Winged Flight (30 points).

Racial Disadvantages: Appearance: Horrific (-30 points), Presentient (-20 points), Semi-Upright (-5 points), four levels of Short Lifespan (-40 points), Slave Mentality (-40 points).

Stress Atavism is not included as a disadvantage because of the Enslave spell, however Stress Atavism could be used to buy off some of the Slave Mentality if the spell is broken.

Base stats are drawn from those for Chimpanzees in the [GURPS Bestiary](#) (p. BE11).

These figures are based on the movie version of the Winged Monkeys. In the *Oz* books, the winged monkeys are less fearsome, have the racial quirk Mischievous, and are controlled via an Oath spell (p. G77) cast with the Golden Cap.

It Thinks Therefore It Is, Right?

The Sub-College of Uplifting can lead to some interesting legal situations for PCs.

If a wizard magically uplifts a cat to full sentience, what levels of legal protection would the cat have? What about in a setting like [GURPS Humanx](#) or [GURPS Uplift](#), where genetically engineered sentient animals are commonplace? What about in a mythic or fantasy world where "normal" animals may talk?

In all likelihood, uplifting would be highly regulated and controlled by megacorps, the church, the military, the Illuminati, and/or the government, depending upon the campaign.

Another problem facing magical uplifting is the creation of a viable new sentient species, as opposed to just a sentient individual. It is safe to assume that too much genetic dabbling will lead to sterility or at least to the inability to breed with non-uplifted members of the source species. If a magician wants to create a race of hominoid felines, a large enough number of cats would need to be uplifted simultaneously to ensure that the same modifications track across all the individuals. This will increase the cost of each spell proportionally.

To help increase the chances for species survival, Dominant Gene or other spells might be used to reduce the chances of environmental mutation or birth defects, and magical changes to the reproductive system -- Accelerate Pregnancy or perhaps with a reversed form of Strike Barren -- might be made to increase fecundity or to extend fertility. Reproductive modifications are discussed in [*Bio-Tech*](#) on pp. BIO47-49.

Finally, just like their scientifically created cousins, magically uplifted animals are subject to Stress Atavism (p. CI105).

Critical failures and/or successes in the Uplifting sub-college can have dangerous results. A critical failure could swap the minds of the caster and the subject or summon a demon to possess the subject. A critical success could create a superintelligent creature, one smart enough to play dumb whenever anyone is watching, biding time, until its newfound psionic powers . . .

New Gene College Spells

Adapt Breathing (VH) Special

Can adapt subject to breath water, methane, thin air, vacuum or other atmospheres. The spell can reform the lungs so that they can extract oxygen from water or thin atmospheres, or it can adapt the circulatory, lymphatic and respiratory systems so that they can operate on some substance other than oxygen.

Duration: Permanent

Cost: 225

Time to Cast: at least 1 day

Prerequisites: Magery 3, Adapt Skin, Reform Skeleton

Adapt Skin (VH) Special

Allows the caster to change the skin of a subject. Fur or scales can be added or removed to change DR. Pressure Support can be added for life undersea or in space. Chlorophyll could

be added to decrease life support needs.

Duration: Permanent

Cost: 225

Time to Cast: at least 1 day

Prerequisites: Magery 3, Sculpt Flesh

Affix New Limb (VH) Special

Allows the caster to add new appendages to a subject. Wings can be added to the shoulder blades or a prehensile tail could be added to a human, for example.

Duration: Permanent

Cost: 225

Time to Cast: at least 1 day

Prerequisites: Magery 3, Musculate

Awaken Self-Knowledge (VH) Special

Awaken Self-Knowledge is the next step in the chain of uplift, sparking full self-awareness in presentient beings. The subject must have an IQ of at least 8. Creatures raised to full sentience will be thinking creatures, but unless they are modified to handle tools or express language, communication and tool usage are not assured.

Duration: Permanent

Cost: 1,000

Time to Cast: at least 1 week

Prerequisites: Magery 3, Uplift

Boost Drug/TL Regular

This spell is cast on the intended recipient of a drug. The next drug administered to the subject will have its effect doubled in some way. This might be duration, damage done (or relived), two HT rolls for Revive, etc. Multiple castings have no extra effect, and only one aspect is doubled.

The definition of "drug" is left to the GM, but all pharmaceuticals in [Cyberpunk](#), [Space](#), [Ultra-Tech](#), [Ultra-Tech 2](#), and [Bio-Tech](#) count, as do alcohol and other addictive substances. Additional castings on the same subject suffer penalties in the same manner as Minor Healing.

Duration: The drug must be administered within 20 seconds.

Cost: 4

Time to Cast: 3 seconds

Prerequisites: Magery, 3 each Healing and Body Control spells

Item: A hypo or pneumospray hypo could be enchanted to deliver double-doses at all times for 4,500 energy.

Boost Drug was designed by S. John Ross and appeared previously in "Spells from the Galactic Guild," *White Wolf Magazine* #34. The article also is available on-line at <http://www.io.com/~caroth/SJohn/Spaceage.htm>

Dominant Gene (VH) Regular; Resisted by HT

This spell allows the mage to tweak a single recessive trait, making it dominant. For example, the dominance pattern for eye color could be switched in an individual so that her descendants always have green eyes. The downside is that selecting a gene for dominance could stifle natural mutation and evolution of that trait among a population.

Duration: Permanent

Cost: 5

Time to Cast: 30 seconds

Prerequisites: Magery 2, Resequene

Dwindle Tumor (VH) Regular

The opposite of Metastasize, Dwindle Tumor will cure magical or mundane forms of cancer. If the cancer is the result of radiation exposure (p. S77 or p. G103-104), the spell does not reduce the number of permanent rads in the subject's body (c.f. Cure Radiation, p. G105), but it will halt any suffering from radiation sickness until the next exposure.

Duration: Permanent

Cost: 12

Time to Cast: 1 minute

Prerequisites: Magery 2, Resequene, Major Healing

Item: Staff or Wand. Energy cost to create: 1,600. Usable only by a mage.

Metastasize (VH) Regular; Resisted by HT

The only attack spell in the Gene College, Metastasize trips potentially cancerous genes causing them to begin to mutate and spread.

If a person has cancer at the time of the attack, the rapid growth of cancerous cells will cause 1d damage within 10 minutes and cause the subject to feel sick and nauseated, as per Sickness (p. M66). Another die of damage will be taken and 1 point of HT will be lost each week, until the subject dies or is healed.

In a person without cancer, Metastasize will spark the disease with symptoms appearing 2d

months after the attack. Once symptoms appear, the subject will suffer the weekly damage and HT loss, as well as the sickness described above.

Metastasize can be countered/dispelled by Dwindle Tumor, Wish (p. M43) or a combination of Major Healing (p. M50) and Cure Disease (p. M50). Relieve Sickness (p. G54) will cure the symptoms, but the weekly HT loss and damage will continue. Suspended Animation (p. M50) or TL9+ cryonics (pp. BIO113-115) can suspend the weekly damage and HT temporarily.

Duration: Permanent

Cost: 6

Time to Cast: 30 seconds

Prerequisites: Magery 2, Resequencing

Item: Staff or Wand. Energy cost to create: 1,000. Usable only by a mage.

Musculate (VH) Special

Allows the gene weaver to modify muscle structures to manipulate new/additional limbs or to boost ST or DX.

Duration: Permanent

Cost: 225

Time to Cast: at least 1 day

Prerequisites: Magery 3, Reform Skeleton

Pheromones (VH) Special

Adds scent emitters and receptors to the subject's skin, as per Pheromone Modification (p. BIO37). These pheromones may be tuned to specific species, as per TL10 Dominance Pheromones (p. BIO37), or they could be used as a form of Secret Communication (p. CI65).

Duration: Permanent

Cost: 225

Time to Cast: at least 1 day

Prerequisites: Magery 3, Adapt Skin

Item: Jacket or Cloak. Energy cost to create: 1,250. If scent-based, cost is 1,000.

Reform Skeleton (VH) Special

Allows the gene weaver to modify a skeleton to support new/additional limbs or to boost ST, HT and/or encumbrance.

Duration: Permanent

Cost: 225

Time to Cast: at least 1 day

Prerequisites: Magery 3, Sculpt Flesh

Reform Limb (VH) Special

Regrows the subject's limbs in a new form. Legs, for example, can be replaced by a Merfolk's tail. Arms can be replaced by wings. A lost limb can be regrown.

Duration: Permanent

Cost: 225

Time to Cast: at least 1 day

Prerequisites: Magery 3, Sculpt Flesh, Lengthen Limb

Resequene (VH) Regular

Guides the gene weaver in restructuring the genetic code. Resequene must be continued continuously during a genetic modification.

Duration: 1 day. One try per day.

Cost: 5 to cast; 5 to continue

Time to Cast: 10 minutes

Prerequisites: Magery 2, Seek Genome, Alter Body

Sculpt Flesh (VH) Special

Allows the caster to make simple, cosmetic modifications to a subject, such as changing hair color or adding pointy ears or webbing between fingers. Generally, these modification will have little or no game effect, although it could be used to change eyelids into Nictating Membranes (p. CI62).

Duration: Permanent

Cost: 116

Time to Cast: at least 4 hours

Prerequisites: Magery 2, Enchantment, Merging Shapeshift, Resequene

Seek Genome Information

Helps the caster determine which genes must be adapted to ensure successful gene modification. It must be recast for each advantage being added.

Duration: 1 hour.

Cost: 2 to cast; 1 to maintain

Time to Cast: 1 minute

Prerequisite: Magery 1

Item: An automedic, diagnosis table or medscanner (p. UT94). Energy cost to create: 1,000. Usable only by a mage.

The Brain! (VH) Special

The Brain! allows a caster to boost the IQ of a subject by 1 point. Success in casting depends upon the base intelligence of the subject, as does the energy cost of the spell (see chart). Normal Magery bonuses do not apply to The Brain!, and it cannot raise IQ above 15.

Base IQ	Modifier	Cost
1	0	500
2-3	-1	600
4-5	-2	750
6-7	-3	900
8-9	-4	1,150
10	-5	1,300
11	-6	1,600
12	-7	1,900
13	-8	2,200
14	-9	2,500

As a creature's IQ is boosted, its physical body may need to be reshaped with other Gene College spells to take advantage of increased brain capacity. Uplift can be used with The Brain! to raise a creature to Presentience (p. CI103).

At GM option, a critical success with The Brain! (or a variant version of the spell) could spark latent psionic powers (p. P86) in a subject whose IQ is greater than 12.

Duration: Permanent

Cost: see chart

Time to Cast: at least 1 week

Prerequisites: Magery 3, Resequencing, 8 each Gene and Information spells.

Uplift (VH) Special

Uplift can spark a limited degree of self-awareness in creatures with an IQ of at least 5. Creatures affected by Uplift become Presentient (p. CI103) and can be uplifted gradually to full sentience. For more information on the uplifting process, see [Uplift](#), pp. U60-77, or the Engineered Animals section of [Bio-Tech](#), pp. BIO98-105.

Duration: Permanent

Cost: 500

Time to Cast: at least 1 week

Prerequisites: Magery 3, The Brain!

Article publication date: December 11, 1998

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