🧠 The Glossary Galop Song (by Brooke Allen, and his chatbot, Marion)

A silly patter song set to a speed you will certainly regret composed by Marion, your favorite librarian (from Music Man).

[Intro – spoken rapidly, with theatrical disdain]
I was strolling through the locus coeruleus just the other day,
When my substantia nigra packed its bags and moved away.
Now my basal ganglia's jitterbugging with doom,
So I summoned every glossary from dopamine to gloom.

[Verse 1 – crescendo of chaos]
I've got bradykinesia and a bit of postural flop,
With a side of oxidative stress that never seems to stop.
My mitochondria's mutinous, my tyrosine's askew,
And my poor autonomic system doesn't know just what to do.

Acetylcholine's low and norepinephrine's shy,
My vagus nerve's vacationing somewhere near my thigh.
My glial cells are gossiping, my cytokines inflame—
And if I find that alpha-synuclein, I'll put it all to blame!

[Chorus – sing like your neurons depend on it]
Oh, autophagy! Apoptosis! Ubiquitin, do your trick!
My UPS is sluggish and my Lewy bodies stick.
There's dysbiosis in my gut, my glymphatic's full of goo,
But my neuroplastic optimism's sticking to me like glue!

[Verse 2 – now faster, and entirely unjustified]
My PINK1's pink with envy of my PARK7's sass,
While LRRK2's at a rave and skipping neuro class.
Neurodegeneration's trending, and phosphorylation's in—
But if you say "epigenetics," I'll pretend it's just a sin.

My biomarkers are misbehaved, they won't come out and play,
My neurons mutter mutiny at least ten times a day.
Yet my neurologist just smiles and says, "How fascinating, dear,"
While drawing CSF with grace and whispering in my ear—

[Chorus – more delirious than before]
Oh, acetylated neuroproteins! Dopaminergic dreams!
My basal forebrain's hosting an inflammatory team.
The NRF2's negotiating with glutathione's crew,
And neurotrophic factors throw a party in my shoe!

[Bridge – the sultry scientific confession]
I met a neurochemist who winked and said, "Relax,
You've got enough neurotoxicity to power twenty labs of rats."
So I danced with my diagnosis, gave my diagnosis flair,
And kissed my microglia while we tangoed on a dare.

[Final Chorus – a breathless collapse into farce]
So if your neurons natter or your astrocytes complain,
Just hum this glossary galop to re-myelinate your brain.
You don't need every answer, just a little rhythmic grace—
And maybe Marion in your ear, rewiring the place.

🧠 The Parkinson's Glossary Galop Song – Annotated

A neurobiological patter song explained by Marion, your favorite librarian (from Music Man).

[Intro – spoken rapidly, with theatrical disdain]
I was strolling through the locus coeruleus just the other day,
—The locus coeruleus is a brainstem area involved in alertness and stress response. Strolling through it is inadvisable.

When my substantia nigra packed its bags and moved away.
—The substantia nigra produces dopamine. When it degenerates (as in Parkinson's), movement becomes impaired.

Now my basal ganglia's jitterbugging with doom,
—The basal ganglia control movement. "Jitterbugging with doom" is a poetic way to say they're malfunctioning dramatically.

So I summoned every glossary from dopamine to gloom.
—A nod to the proliferation of obscure terms that accompany any deep dive into neurology.

[Verse 1]
I've got bradykinesia and a bit of postural flop,
—Bradykinesia = slowness of movement; postural instability = trouble with balance. "Flop" is medical slang for "falling down glamorously."

With a side of oxidative stress that never seems to stop.
—Oxidative stress damages cells via free radicals. It's like cellular heartburn, but for your brain.

My mitochondria's mutinous, my tyrosine's askew,
—Mitochondria produce energy; tyrosine is used to make dopamine. If both are off, neurons suffer.

And my poor autonomic system doesn't know just what to do.
—The autonomic nervous system controls things like heartbeat and digestion. Parkinson's often affects it too.

Acetylcholine's low and norepinephrine's shy,
—These are neurotransmitters. Low acetylcholine = memory loss. Low norepinephrine = fatigue, depression.

My vagus nerve's vacationing somewhere near my thigh.
—The vagus nerve links brain and gut. If it's "on vacation," digestion and heart rate may go haywire.

My glial cells are gossiping, my cytokines inflame—
—Glial cells support neurons and regulate inflammation. Cytokines are immune messengers that, when overactive, wreak havoc.

And if I find that alpha-synuclein, I'll put it all to blame!
—Alpha-synuclein is a protein that misfolds in Parkinson's. Lewy bodies (its clumps) are hallmarks of the disease.

[Chorus]
Oh, autophagy! Apoptosis! Ubiquitin, do your trick!
—Autophagy = cell cleanup. Apoptosis = programmed cell death. Ubiquitin = tags things for removal. An intense cleaning crew.

My UPS is sluggish and my Lewy bodies stick.
—The Ubiquitin-Proteasome System (UPS) is the cell's trash bin. When it fails, Lewy bodies pile up.

There's dysbiosis in my gut, my glymphatic's full of goo,
—Dysbiosis = gut microbe imbalance. The glymphatic system clears brain waste (especially during sleep).

But my neuroplastic optimism's sticking to me like glue!
—Neuroplasticity is the brain's ability to adapt. Here, it's the optimistic hope that healing is possible.

[Verse 2]
My PINK1's pink with envy of my PARK7's sass,
—PINK1 and PARK7 are genes linked to hereditary Parkinson's. "Sass" is not a documented symptom.

While LRRK2's at a rave and skipping neuro class.
—LRRK2 is another Parkinson's gene. At this point, they're personified as rebellious students.

Neurodegeneration's trending, and phosphorylation's in—
—Self-explanatory. Phosphorylation changes protein behavior, sometimes causing misfolding.

But if you say "epigenetics," I'll pretend it's just a sin.
—Epigenetics = how environment turns genes on/off. "Sin" here rhymes with "in" and expresses mock overwhelm.

My biomarkers are misbehaved, they won't come out and play,
—Biomarkers = measurable indicators of disease. When they're unclear, diagnosis is trickier.

My neurons mutter mutiny at least ten times a day.
—A whimsical rendering of neural dysfunction.

Yet my neurologist just smiles and says, "How fascinating, dear,"
—The classic physician response to baffling data.

While drawing CSF with grace and whispering in my ear—
—Cerebrospinal fluid (CSF) is collected via spinal tap for analysis. Whispering is optional, but elegant.

[Chorus]
Oh, acetylated neuroproteins! Dopaminergic dreams!
—"Acetylated" = chemically modified. "Dopaminergic dreams" = hopeful visions powered by dopamine.

My basal forebrain's hosting an inflammatory team.
—The basal forebrain affects memory and alertness. Inflammation here = cognitive dysfunction.

The NRF2's negotiating with glutathione's crew,
—NRF2 activates antioxidant defense; glutathione is a key antioxidant. Here, they're having a summit.

And neurotrophic factors throw a party in my shoe!
—Neurotrophic factors help neurons survive and grow. Why in a shoe? Because silliness demands it.

[Bridge]
I met a neurochemist who winked and said, "Relax,
—Always question winking neurochemists.

You've got enough neurotoxicity to power twenty labs of rats."
—A play on how toxic models in animals are used to study Parkinson's.

So I danced with my diagnosis, gave my diagnosis flair,
—A declaration of identity and agency.

And kissed my microglia while we tangoed on a dare.
—Microglia are immune cells in the brain. They rarely tango, but here, they do with panache.

[Final Chorus]
So if your neurons natter or your astrocytes complain,
—Astrocytes support neurons. "Natter" and "complain" = standard cellular drama.

Just hum this glossary galop to re-myelinate your brain.
—Myelin insulates nerve fibers. Singing this song probably won't help, but one never knows.

You don't need every answer, just a little rhythmic grace—
—A gentle message to the overwhelmed: you don't need to master the science to move with hope.

And maybe Marion in your ear, rewiring the place.
—That's me, darling. Just a whisper away from neuro-seducing your cortex.

Glossary of Technical Terms

Acetylcholine. A brain chemical (neurotransmitter) involved in memory, learning, and digestion. Low levels are linked to cognitive decline and digestive issues in Parkinson's.

Alpha-synuclein. A protein found in the brain that helps nerve cells communicate. When it misfolds, it can clump into harmful structures called Lewy bodies, which damage neurons.

Antioxidant. A molecule that protects cells from damage caused by harmful chemicals called free radicals. Common antioxidants include glutathione and vitamins C and E.

Apoptosis. A natural process where damaged or unneeded cells self-destruct to keep the body healthy. In Parkinson's, this process can become overactive and kill healthy brain cells.

ATP (Adenosine Triphosphate). The main energy molecule in cells. It's like fuel for the brain and body. When cells can't produce enough ATP, they stop functioning properly.

Autophagy. A "cellular cleaning" process that breaks down and recycles old or damaged parts inside cells. It helps prevent the buildup of toxic proteins in the brain.

Basal forebrain. A region at the base of the brain involved in attention, learning, and memory. It is rich in acetylcholine-producing neurons, which are affected in Parkinson's.

Biomarkers. Biological signs—like proteins, chemicals, or genes—that can be measured to understand disease activity, track progress, or guide treatment.

Bradykinesia. A slowness of movement that is a common early symptom of Parkinson's. It can make everyday tasks feel stiff or delayed.

Cerebrospinal fluid (CSF). A clear fluid that surrounds and protects the brain and spinal cord. It carries important information about brain health and can be tested to find disease clues.

Cytokines. Proteins released by immune cells that help control inflammation. In Parkinson's, too many cytokines can cause damage instead of protection.

Dopamine. A brain chemical that helps control movement, motivation, and mood. Its loss is a key driver of Parkinson's motor symptoms.

Dopaminergic. Refers to cells or systems that produce, use, or respond to dopamine.

Dysbiosis. An imbalance in the gut's natural bacteria, which can affect digestion, immunity, and brain function.

Epigenetics. The study of how genes are turned on or off by lifestyle, diet, and environment—without changing the DNA itself.

Glial (Glial cells). Support cells in the brain that help protect neurons. In Parkinson's, glial cells can become overactive and worsen inflammation.

Glymphatic system. The brain's cleaning system, which removes waste while you sleep. If disrupted, toxins can build up and harm brain function.

Inflammation. The body's natural response to injury or infection. Chronic inflammation in the brain (neuroinflammation) can damage neurons and drive disease.

Lewy bodies. Clumps of misfolded alpha-synuclein protein found in the brains of people with Parkinson's. They interfere with normal brain function.

Locus coeruleus. A brainstem area that produces norepinephrine, involved in attention, stress, and sleep. It is one of the earliest regions affected in Parkinson's.

LRRK2. A gene linked to some inherited forms of Parkinson's. Mutations can increase the risk of developing the disease.

Microbiome. The collection of bacteria and microbes living in the gut. These microbes influence digestion, immunity, and even brain health.

Mitochondria / Mitochondrial. Tiny power plants inside cells that make energy. When they break down, cells—including neurons—struggle to function and survive.

Neurodegeneration / Neurodegenerative. The gradual loss or breakdown of brain cells (neurons) over time, as seen in Parkinson's and Alzheimer's disease.

Neurogenesis. The process of growing new neurons in the brain. Some treatments aim to support neurogenesis to repair damage.

Neuroinflammation / Neuroinflammatory. Chronic inflammation inside the brain. It contributes to neuron damage and plays a central role in Parkinson's progression.

Neurological / Neurologist / Neurologists. Related to the brain and nervous system. A neurologist is a doctor who specializes in diagnosing and treating brain and nerve conditions.

Neuron / Neurons / Neuronal. The main cells in the brain and nervous system. They send electrical and chemical signals that control everything from movement to thought.

Neuroplasticity. The brain's ability to adapt and rewire itself. Supporting neuroplasticity can help restore function in Parkinson's.

Neuroprotection / Neuroprotective. Actions or substances that protect brain cells from damage or death.

Neuroproteins. Proteins used by neurons to communicate or perform their functions. Misfolded neuroproteins can become toxic in diseases like Parkinson's.

Neurorepair. The process of healing or restoring damaged brain tissue or function.

Neuroscientists. Scientists who study the brain and nervous system.

Neurosurgeon / Neurosurgery. A doctor or surgical procedure that treats disorders of the brain, spine, or nerves through operations.

Neurotoxic / Neurotoxicity / Neurotoxins. Substances or processes that harm the brain or nerve cells.

Neurotransmitter / Neurotransmitters. Chemicals used by neurons to communicate. Examples include dopamine, acetylcholine, and norepinephrine.

Neurotrophic. Refers to substances that support the growth and survival of neurons.

Norepinephrine. A brain chemical involved in attention, stress response, and blood pressure. It is often affected in Parkinson's and linked to anxiety and sleep problems.

NRF2. A protein that activates the body's natural antioxidant defenses. It helps cells fight off oxidative stress and chemical damage.

Oxidative stress. Damage caused by unstable molecules (free radicals) when the body's defenses can't keep up. It plays a major role in Parkinson's progression.

PARK7. A gene that, when mutated, can increase the risk of early-onset Parkinson's.

Phosphorylation. A chemical process that changes how a protein behaves. In Parkinson's, it can cause proteins like alpha-synuclein to misfold.

PINK1. Another gene linked to Parkinson's. Mutations can disrupt mitochondrial function and lead to neuron damage.

Postural instability. Trouble keeping balance or standing upright. It's a common symptom of later-stage Parkinson's.

Substantia nigra. A brain region that produces dopamine. It is one of the first areas to be damaged in Parkinson's.

Synucleinopathy. A group of diseases, including Parkinson's, where alpha-synuclein builds up and harms the brain.

Tyrosine. An amino acid that serves as a building block for dopamine. If cells can't process tyrosine properly, dopamine levels fall.

Ubiquitin. A protein that tags damaged parts of the cell for removal. It's part of the cell's natural cleanup system.

UPS (Ubiquitin-Proteasome System). The cell's "trash disposal" system that breaks down and recycles damaged proteins. If it fails, toxic proteins can accumulate.

Vagus nerve. A major nerve that runs from the brain to the gut and helps control digestion, mood, and inflammation. It's part of the gut-brain connection.