

ARTICLE

Word Origins of Common Neuroscience Terms for Use in an Undergraduate Classroom

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We compiled a list of nearly 300 neuroscience terms and list their language of origin (typically Latin or Greek), their literal meaning, and their pronunciation in a table. The table was distributed to students in an undergraduate neuroscience class a few weeks before the first examination. A follow-up survey asked students how long they spent with the handout, and also assessed whether they thought it helped them better understand the terms, apply the terms, and whether they thought it helped them enough to get a higher grade on the exam. Results were positive: nearly 78% of students used the table while reviewing the material, and these students overwhelmingly

reported that the table helped them better understand and apply the terms. However, students were equally split on whether the handout resulted in a better grade on the first exam. It was our premise that better understanding the derivation of the words can help students make associations between the terms and their meanings/functions. This handout can be used in any undergraduate neuroscience to help students better understand the complex terminology associated with the material.

Key words: etymology; word origins; undergraduate learning; student success

Understanding the vocabulary in a science class can be frustrating for students and may act as a barrier to learning the terms and concepts of a class. Yager (1983) points out that students are required to understand just as many vocabulary words in a science class as a foreign language course, making it difficult for the student to comprehend the material. However, research shows that students who have taken Latin have an easier time understanding new terms (Gilliland, 1922), and that exposing students to the root words of biological terms is beneficial for retention (Yager, 1983; Wandersee, 1985; Miller, 1986; Kessler, 1999). Other efforts have compiled a list of neuroscience-related terms and include their meaning (Chudler, 2016) but have not included the derived language or pronunciation guide. Here, we present a list of nearly 300 words used in neuroscience in an easy to use table that includes their root meaning, pronunciation, language the term was derived from, and category of the terms.

For example, even understanding the derivation of the words *depolarization*, *repolarization*, and *hyperpolarization* can help students better understand the action potential itself. Students may get confused when they look at a graph depicting the characteristic action potential, with the rise from resting membrane potential (depolarization), the fall back towards rest (repolarization), and the undershoot (hyperpolarization). Students may wonder why the hyperpolarization dips *down*, since *hyper* is Greek for *above*. The explanation lies with an understanding of *polarization*, from the French *to cause extremes*. Simply, when the cell is at rest, a difference in ion concentrations inside and outside the cell cause the cell to be a particular membrane potential (typically -65 mV). Then, upon an action potential, sodium ions (Na⁺) will rush into the cell causing depolarization and the rise in the membrane potential. Depolarize literally means *undoing the*

polarization, and the membrane potential shoots past 0 mV to a positive number. After the peak is reached, potassium ions (K⁺) will rush into the cell, causing the membrane potential to return to rest. At this point, the cell is repolarizing, which simply means *return to polarized*. The undershoot of the membrane potential below rest, at a membrane potential more negative than rest (to perhaps -75 mV) is characteristic of hyperpolarization, which means *beyond polarized*. During hyperpolarization, the cell is *more polarized*, thus the application of the prefix *hyper-* when in fact the membrane potential is more negative.

We made a list of common terms used in the field that are frequently taught in an undergraduate neuroscience course and included the meanings and pronunciations of the source words to help student retention of the words and concepts that define the field.

MATERIALS AND METHODS

Key terms were systematically obtained from key words and the glossary of several undergraduate textbooks (Nicholls et al., 2012; Bear et al., 2016). Next, the etymology of the words were checked in those textbooks, standard dictionaries, and other published works (Jaeger, 1955; Borror, 1960; Duque-Parra, 2005). Further, American English pronunciations and categories for each term was added to the spreadsheet. The presentation of the word list in individual Excel columns allows users to sort the list by topic, rather than having to read through all the terms (See Table 1 located at the end of the article and Supplementary Excel file).

This word list was given to 23 students in an introductory neuroscience course at Purdue University Northwest, Hammond campus, in the Fall of 2016 two weeks before their first exam. A physical copy of the sheet was handed out to students, and an Excel sheet of the

material was also made available to them online through Blackboard. Students were told that the list was to help their comprehension of the terms, and that no test questions would be made from the handout itself. In the class after the first test, a survey was given to students assessing how the word list was utilized and how effective it was. Question 1 asked if they spent any time reviewing the handout. If they answered 'yes,' they were instructed to proceed to the rest of questions. Question 2 asked how much time they spent reviewing the handout. Questions 3, 4, and 5 asked if they believed that the handout helped them better understand some of the terms, better apply some of the terms, and do better on the exam, respectively.

RESULTS

There were 18 students who completed the survey on the effectiveness of the handout. Of the 18 students, 14 reported spending time reviewing it while four did not. All students but one spent less than 20 minutes reviewing the handout (See Figure 1).



Figure 1. Time spent reviewing the handout for the 18 people who completed the survey.

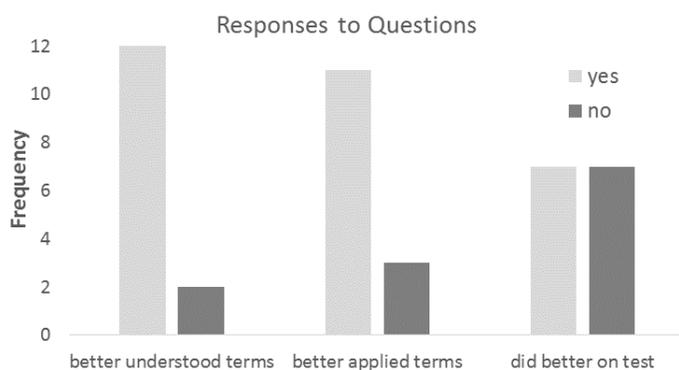


Figure 2. Frequency of 'yes' and 'no' responses from the 14 students who reviewed the word source handout prior to the exam.

Students were also asked a set of three questions to assess the effectiveness of the worksheet. Among the 14 students who reported reviewing the handout, 83% indicated that it helped them better understand the terminology, 73% indicated that it helped them better apply

some of the terms, and 50% believed that the handout helped them do better on the first exam (See Figure 2).

DISCUSSION

The list of neuroscience words we generated proved beneficial to the students as assessed on a short survey following their first examination. Past research buttresses the utility of teaching the etymology of terminology (Yager, 1983; Wandersee, 1985; Miller, 1986; Kessler, 1999). Chudler (2016) published an online list of nearly 250 neuroscience-related word origins, but many of the words are not typically encountered in an undergraduate neuroscience course (e.g., alveus, ampulla, and antitoxin, to name a few). The list we generated here is more extensive and better representative of the terminology covered in standard undergraduate textbooks (e.g., Nicholls et al., 2012; Bear et al., 2016). However, this is not to say that knowing the etymology of each term will help remember the structure or function. For example, 'corpus callosum' literally means *thick-skinned body*, a somewhat abstract way of stating it is a thick structure that contains many axons. Additionally, 'pupil' literally means *doll*, which is difficult to comprehend until one knows that it refers to the small reflected image that someone sees of themselves when they stare into someone's pupil. As a whole, however, this list should be used to make the complex terminology associated with the field more understandable and less daunting for the students.

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| Term | Pronunciation | From | Meaning | Category |
|------------------|-----------------------------|-------------|---------------------------|------------------|
| depolarize | dee POE ler eyes | G/L | undoing the polarization | action potential |
| endocytosis | EN doe sigh toe sis | G | within the cell | action potential |
| exocytosis | EX oh sigh toe sis | G | out of the cell | action potential |
| hyperpolarize | hi per POE ler eyes | G/L | beyond polarized | action potential |
| ligand | LIE gand or LIG and | L | to bind | action potential |
| polarize | POE lur eyes | F | to cause extremes | action potential |
| repolarize | REE poe ler eyes | G/L | return polarized | action potential |
| saltatory | SAL tuh tory | L | to jump | action potential |
| amygdala | uh MIG duh luh | G | almond-shaped | anatomy |
| arcuate | ARE cue ate | L | bowed | anatomy |
| auditory | AWE dih tor ee | L | to hear | anatomy |
| basal | BAY zul | L | base | anatomy |
| broca's area | BRO caws | | after Paul Broca (French) | anatomy |
| calcarine | CAL car ine | L | spur-shaped | anatomy |
| callosum | col LOW sum or col LAH sum | L | thick-skinned | anatomy |
| capsule | CAP sule | L | case | anatomy |
| caudate | CAW date | L | tail | anatomy |
| chiasm | KIE asm | G | cross | anatomy |
| cingulate | SING gyou lit | L | collar | anatomy |
| colliculus | col LICK you lus | L | small hill | anatomy |
| commissure | COM mis sure | L | to join | anatomy |
| Cornu ammonis | core nu / ah MOE nis | L | ram's horn | anatomy |
| corpus | CORE puss | L | body | anatomy |
| corticofugal | Cor tih go FUE gul | L | fleeing from the cortex | anatomy |
| cuneus | CUE nee us | L | wedge | anatomy |
| dentate | DEN tate | L | tooth | anatomy |
| fornix | FOR nix | L | arch | anatomy |
| frontal | FRUN tal | L | front, forehead | anatomy |
| fusiform | FUSE ih form | L | spindle-shaped | anatomy |
| ganglia | GANG lia | G | a swelling | anatomy |
| genu | GEN you | L | knee | anatomy |
| globus pallidus | GLOW bus / PAL lid us | L | pale globe | anatomy |
| gustatory | GUS tuh tory | L | taste | anatomy |
| hippocampus | hip poe CAM pus | G | sea horse | anatomy |
| hypothalamus | hy poe THAL a mus | L | under the thalamus | anatomy |
| infundibulum | in fun DIB you lum | L | a funnel | anatomy |
| insular | IN sue lur | L | island | anatomy |
| limbic | LIM bic | L | edge | anatomy |
| lingual | LING gual | L | tongue | anatomy |
| locus coeruleus | low cus / coe RUL ee us | L | blue place | anatomy |
| mammillary | MAM mill air ee | L | breast | anatomy |
| massa intermedia | mass uh / in ter MEAD ee uh | L | intermediate mass | anatomy |

| Term | Pronunciation | From | Meaning | Category |
|------------------|---------------------------|------|-----------------------------------|----------------|
| medulla | meh DOO luh or meh DUL uh | L | marrow | anatomy |
| oblongata | ob long GAH tuh | L | oblong | anatomy |
| occipital | oc CIP ih tal | L | back part of head | anatomy |
| optic | OP tic | G | sight | anatomy |
| parietal lobe | par EYE eh tul | L | a wall, partition, divider | anatomy |
| pineal | pie KNEE ul | L | pine cone | anatomy |
| piriform | PEER ih form | L | pear shaped | anatomy |
| pituitary | pih TWO ih tare ee | L | phlegm, slime | anatomy |
| pons | PONS | L | bridge | anatomy |
| putamen | pew TAY men | L | shell, husk | anatomy |
| raphe | RAH fay | G | seam | anatomy |
| rhinal fissure | RYE nul | G | nose | anatomy |
| somatosensory | soe mat oh SEN sore ee | L | body senses | anatomy |
| splenium | SPLEN ee um | L | bandage | anatomy |
| sylvian | SIL vee an | | after Franciscus Sylvius (Dutch) | anatomy |
| tectum | TEC tum | L | roof | anatomy |
| tegmentum | teg MEN tum | L | a covering | anatomy |
| temporal lobe | TEM pore ul | L | of the temples | anatomy |
| thalamus | THAL uh mus | L | an inner chamber | anatomy |
| wernicke's area | WER nih keys | | after Carl Wernicke (German) | anatomy |
| bipolar | bi POL er | L | two extensions | cell type |
| granule | GRAN yule | L | grain | cell type |
| interneuron | in ter NUR on | E | between neurons | cell type |
| mitral | MY trahl | L | headband | cell type |
| purkinje cell | pur KIN gee | | after Jan Purkinje (Czech) | cell type |
| pyramidal | pi RAM ih dul | L | pyramid | cell type |
| schaffer | SHAY fer | | after Karoly Schaffer (Hungarian) | cell type |
| stellate | STELLE late | L | star | cell type |
| arbor vitae | are bore / VEE tay | L | tree of life | cerebellum |
| cerebellum | cer eh BELL um | L | little brain | cerebellum |
| peduncles | PEE dung kles | L | foot, stalk | cerebellum |
| vermis | VER miss | L | worm | cerebellum |
| abducens | ab DUE cens | L | take away | cranial nerves |
| auditory | AW dih tor ee | L | hear / a place of entry | cranial nerves |
| facial | FA cial | L | face | cranial nerves |
| glossopharyngeal | gloss oh phare IN gee ul | G | tongue / throat | cranial nerves |
| hypoglossal | hy poe GLOSS ul | G | under the tongue | cranial nerves |
| oculomotor | OC cue lo MOE tor | L | eye mover | cranial nerves |
| olfactory | ol FAC tory | L | to smell | cranial nerves |
| optic | OP tic | G | seen | cranial nerves |
| spinal accessory | SPY nal accessory | L | spine | cranial nerves |

| Term | Pronunciation | From | Meaning | Category |
|---------------|----------------------|-------------|--------------------------|------------------|
| trigeminal | tri GEM in ul | L | born in threes | cranial nerves |
| trochlear | TROW klee ar | L | pulley | cranial nerves |
| vagus | VAY gus | L | wandering | cranial nerves |
| vestibular | ves TIB you lar | L | an entranceway | cranial nerves |
| agnosia | ag NO shuh | G | without knowledge | disorder/disease |
| alexia | ay LEX ee uh | G | without speech | disorder/disease |
| amnesia | am NEE shuh | G | forgetting | disorder/disease |
| anencephaly | an en CEPH ul ee | G | without a brain | disorder/disease |
| aneurism | AN your ism | G | widen | disorder/disease |
| anomia | ay NO me uh | L | without a name | disorder/disease |
| aphasia | ay FAY shuh | L | without speaking | disorder/disease |
| apoptosis | ay pop TOE sis | G | falling off | disorder/disease |
| congenital | con GEN ih tal | L | born together | disorder/disease |
| dementia | deh MEN shuh | L | out of one's mind | disorder/disease |
| dyslexia | dis LEX ee uh | G | difficult speech | disorder/disease |
| hemineglect | hem ee neh GLECT | G | half neglect | disorder/disease |
| hydrocephalus | high dro CEPH uh lus | G | water head | disorder/disease |
| idiopathic | id ee oh PATH ic | L | one's own pathology | disorder/disease |
| meningitis | men in GI tus | G | swelling of the meninges | disorder/disease |
| prosopagnosia | pro sop ag NO shuh | G | face blindness | disorder/disease |
| schizophrenia | skit zoe PHREN ee uh | G | split mind | disorder/disease |
| anorexia | an or EX ee uh | G | without eating | feeding |
| bulimia | byoo LEE me uh | G | extreme hunger | feeding |
| leptin | LEP tin | G | thin | feeding |
| endogenous | en DAH gen us | G | coming from the inside | general |
| exogenous | ex AH gen us | G | coming from the outside | general |
| neurogenesis | nur o GEN eh sis | G | neuron growth | general |
| visceral | VISS er ul | L | internal organs | general |
| afferent | AF fer ent | L | to bring forward | general anatomy |
| anterior | an TEAR ee or | L | before | general anatomy |
| autonomic | aw toe NOM ic | E | automatic | general anatomy |
| caudal | CAU dal | L | tail | general anatomy |
| cerebrum | cer REE brum | L | brain | general anatomy |
| contra- | CON truh | L | opposite side | general anatomy |
| coronal | cor OH nul | L | crown | general anatomy |
| diencephalon | di en CEPH uh lon | G | through the brain | general anatomy |
| dorsal | DOR sul | L | back | general anatomy |
| efferent | EE fer ent | L | to carry out | general anatomy |
| fascicle | FASS ick ul | L | a band | general anatomy |
| fasciculus | fass ICK you lus | L | a little band | general anatomy |
| fugal | FU gal | L | fleeing | general anatomy |
| hemisphere | HEM is phere | G | half sphere | general anatomy |

| Term | Pronunciation | From | Meaning | Category |
|-----------------|------------------------|-------------|--------------------------------------|-----------------|
| horizontal | hoar ih ZON tul | G | horizon | general anatomy |
| hypo | HY poe | G | under | general anatomy |
| inferior | in FEAR ee or | L | below | general anatomy |
| ipsi- | IP sih | L | same side | general anatomy |
| lateral | LAT er ul | L | the side | general anatomy |
| lemniscus | lem NIS cus | L | a ribbon | general anatomy |
| medial | ME dee ul | L | middle | general anatomy |
| mesencephalon | MES en ceph uh lon | G | middle of the brain | general anatomy |
| metencephalon | MET en ceph uh lon | G | next to the brain | general anatomy |
| mid | mid | E | midle | general anatomy |
| myelencephalon | MY eh len ceph uh lon | G | marrow brain | general anatomy |
| neocortex | nee oh COR tex | G | new brain | general anatomy |
| nerve | nerve | L | nerve, cord | general anatomy |
| neuraxis | nur AX iss | L | nerve axis | general anatomy |
| para | Pare uh | G | parallel | general anatomy |
| parasympathetic | PAR uh sym puh thet ic | G | beside sympathetic | general anatomy |
| posterior | pose TEAR ee or | L | after | general anatomy |
| rostral | ROS tral | L | beak | general anatomy |
| sagittal | SADGE it ul | L | arrow | general anatomy |
| superior | sue PIER ee or | L | above | general anatomy |
| sympathetic | SYM puh thet ic | G | sympathy | general anatomy |
| telencephalon | TEL en ceph ul lon | G | end of the brain | general anatomy |
| ventral | VEN tral | L | belly | general anatomy |
| cochlea | COE klee uh | G | a snail shell | hearing |
| endolymph | EN doe lymph | G | inside fluid | hearing |
| eustachian | eu STAY shun | | after Bartolomeo Eustachio (Italian) | hearing |
| incus | ING cus | L | an anvil | hearing |
| malleus | MAL ee us | L | a hammer | hearing |
| olivary | OL ih var ee | L | an olive | hearing |
| ossicle | OSS ick ul | L | a little bone | hearing |
| pinna | PIN nuh | L | wing, feather | hearing |
| presbycusis | pres by CUE sis | G | old hearing | hearing |
| scala | scale uh | L | a ladder | hearing |
| stapes | STAY pees | L | stirrup | hearing |
| stereocilia | stare ee oh CILL ee uh | G | firm hair | hearing |
| tinnitus | TIN nit us | L | ringing | hearing |
| tympanic | tim PAN ic | G | drum | hearing |
| astrocyte | ASS troh cite | G | star cell | neurons/glia |
| axon | AX on | G | an axle | neurons/glia |
| bouton | BOO ton | G | button | neurons/glia |
| chromosome | KROH muh sohm | G | color body | neurons/glia |
| cytoplasm | SIGH toe pla zuhm | G | hollowly molded/created | neurons/glia |

| Term | Pronunciation | From | Meaning | Category |
|------------------|------------------------|------|--------------------------------|-----------------|
| dendrites | DEN drites | G | tree | neurons/glia |
| endoplasmic | en doe PLAS mic | G | something formed inside | neurons/glia |
| glia | GLEE uh | G | glue | neurons/glia |
| gliosis | glee OH sis | G | glia in action | neurons/glia |
| golgi | GOL gee | | after Camillo Golgi (Italian) | neurons/glia |
| hillock | HILL ock | E | small hill | neurons/glia |
| homeostasis | hoe me oh STAY sis | G/E | same standing | neurons/glia |
| macrophages | MAK row fayj | G | large eater | neurons/glia |
| microglia | my crow GLEE uh | G | small glue | neurons/glia |
| mitochondria | my toe CON dree uh | G | thread granule | neurons/glia |
| myelin | MY eh lin | G | marrow | neurons/glia |
| neuron | NUR on | G | nerve | neurons/glia |
| neurotransmitter | nur oh TRANS mit ter | E | neuron transfer | neurons/glia |
| nucleolus | noo klee OH lus | L | little nut | neurons/glia |
| nucleus | NEW klee us | L | little nut | neurons/glia |
| oligodendrocytes | ol ih go DEN droh cite | G | few branched cell | neurons/glia |
| organelles | or guh NELS | L | little instrument | neurons/glia |
| phagocytosis | fay go sigh TOH sis | G | devour a cell | neurons/glia |
| radial | RAY dee ul | L | radius | neurons/glia |
| reticulum | reh TIC you lum | L | net | neurons/glia |
| ribosome | RYE buh sohm | E | body of nucleic acid | neurons/glia |
| schwann | shwahn | | after Theodor Schwann (German) | neurons/glia |
| soma | SO ma | G | body | neurons/glia |
| synapse | SIN aps | G | to clasp | neurons/glia |
| vacuole | VAC you ole | L | empty cavity | neurons/glia |
| vesicle | VES ic ul | L | bladder | neurons/glia |
| adrenal | uh DREE nul | L | of the kidneys | sex |
| oxytocin | ox ee TOE sin | G | sharp birth | sex |
| vasopressin | vay so PRESS in | E | blood vessel-constricting | sex |
| circadian | sir CAY dee an | L | about a day | sleep |
| parasomnia | par uh SOM nee uh | G/L | alongside sleep | sleep |
| somnilogy | som NIL oh quee | L | sleep talking | sleep |
| suprachiasmatic | sue pruh kie as MAT ic | L | above the optic chiasm | sleep |
| zeitgeber | ZITE gee ber | Ger | time giver | sleep |
| cervical | SIR vic ul | L | neck | spinal cord |
| coccygeal | cock sih GEE ul | G | cuckoo bird | spinal cord |
| decussate | DECK us sate | L | to cross | spinal cord |
| lumbar | LUM bar | L | loin | spinal cord |
| sacral | SAY crul | L | sacred | spinal cord |
| spina bifida | spy nuh / BIF id uh | L | spine split in two | spinal cord |
| thoracic | thor ASS ic | G | thorax, chest | spinal cord |
| arachnoid | uh RACK noid | G | spider | surface anatomy |

| Term | Pronunciation | From | Meaning | Category |
|------------------|-------------------------|-------------|----------------------------|-----------------|
| cortex | COR tex | L | bark | surface anatomy |
| dura | DUR uh | L | tough mother | surface anatomy |
| fissure | FISH ure | L | a split | surface anatomy |
| gyrus | GYE rus | L | a ring | surface anatomy |
| mater | MAT er | L | mother | surface anatomy |
| meninges | men IN gees | G | membrane | surface anatomy |
| pia | PEE uh | L | tender | surface anatomy |
| sulcus | SUL cus | L | wrinkle | surface anatomy |
| ageusia | ay GYOU zee uh | G | without taste | taste and smell |
| anosmic | ay NOS me uh | G | without smell | taste and smell |
| circumvallate | sir cum VALL ate | L | around a wall | taste and smell |
| cribriform | CRIB rih form | L | sifter, sieve | taste and smell |
| dysgeusia | DIS gyou zee uh | G | taste deficit | taste and smell |
| entorhinal | en toe RHI nul | G | inside nose | taste and smell |
| foliate | FOE lee ate | L | leaf | taste and smell |
| fungiform | FUN gih form | L | mushroom-shaped | taste and smell |
| glomerulus | glow MARE you lus | L | a little ball | taste and smell |
| hyposmic | high POS mee uh | G | smell deficit | taste and smell |
| papillae | pah PILL ay | L | pimple, bump | taste and smell |
| pheromone | PHER oh mone | G/E | a conveyed hormone | taste and smell |
| analgesia | an ul GEE zee uh | G | without pain | touch/motor |
| anesthesia | an es THEE shuh | G | without sensation | touch/motor |
| apraxia | ay PRAX ee uh | G | without action | touch/motor |
| ataxia | ay TAX ee uh | G | without order | touch/motor |
| chorea | cor EE uh | G | dance | touch/motor |
| endorphin | en DOR fin | E | endogenous morphine | touch/motor |
| homunculus | hoe MUNC you lus | L | a little man (person) | touch/motor |
| hyperalgesia | high per al GEE zee uh | G | excess pain | touch/motor |
| mechanoreceptor | meh CAN oh re cep tor | G | mechanical change receptor | touch/motor |
| nociceptor | NO sih cep tor | L | hurt receptor | touch/motor |
| paralysis | par AL is is | G | loosen at the side | touch/motor |
| proprioception | pro pree oh CEP shun | L | one's own receptor | touch/motor |
| striatum | stri AY tum | L | striped | touch/motor |
| substantia nigra | sub stan shuh NIGH gruh | L | black substance | touch/motor |
| thermoreceptor | THER mo re cep tor | G | heat receptor | touch/motor |
| aqueduct | ACK weh duct | L | water duct | ventricle |
| choroid | COR oid | G | a reddish color | ventricle |
| ependymal | ee PEN dim ul | G | tunic-shaped | ventricle |
| foramen | for AY men | L | a hole | ventricle |
| plexus | PLEX us | L | an interweaving | ventricle |
| ventricle | VEN trih cul | L | small cavity | ventricle |

| Term | Pronunciation | From | Meaning | Category |
|-----------------|--------------------------|------|-----------------------------------|----------|
| achromatopsia | ay crow muh TOP see uh | G | without seeing color | vision |
| amacrine | AM uh crine | G | without long fiber | vision |
| amblyopia | am blee OH pee uh | G | dull vision | vision |
| aqueous | ACK we us | L | water | vision |
| astigmatism | ay STIG ma tism | G | without a point | vision |
| brodmann area | BROD man | | after Korbinian Brodmann (German) | vision |
| cataracts | CAT are acts | L | waterfall | vision |
| cone | cone | G | cone | vision |
| cornea | COR nee uh | L | with horns | vision |
| diplopia | dih PLO pee uh | G | double vision | vision |
| fovea | FO via | L | small pit | vision |
| glaucoma | glau COE muh | G | pale blue green | vision |
| humor | HUE mur | L | body fluid | vision |
| iris | EYE ris | G | the rainbow | vision |
| koniocellular | KOE nee oh cell you lur | G | dust cell | vision |
| lens | lens | L | lentil shaped | vision |
| macula lutea | MAC you luh LOO tea uh | L | yellow spot | vision |
| magnocellular | mag no CELL you lur | L | large cell | vision |
| nystagmus | ny STAG mus | G | nodding | vision |
| oblique | oh BLEEK | L | slanting | vision |
| opsin | OP sin | E | shortening or rhodopsin | vision |
| parvocellular | par voe CELL you lur | L | small cell | vision |
| photopic | pho TOP ic | G | light-seeing | vision |
| photoreceptors | pho toe ree CEP tors | G/L | light receiver | vision |
| presbyopia | pres by OH pee uh | G | old vision | vision |
| pupil | PYOU pil | L | doll | vision |
| rectus | REC tus | L | straight | vision |
| retina | RET in uh | L | a fine net | vision |
| retinofugal | ret in oh FEW gul | L | fleeing from the retina | vision |
| retinotopic | ret in oh TOP ic | G | retina place | vision |
| rhodopsin | rho DOP sin | G | rose sight | vision |
| rod | rod | E | Slender stick | vision |
| saccade | sah COD or sah CADE | F | a jolt, a sudden movement | vision |
| sclera | SCLARE uh | G | hard | vision |
| scotoma | scuh TOE muh | G | becoming dark | vision |
| scotopic | sco TOP ic | G | dark-seeing | vision |
| stereopsis | stare ee OP sis | G | three-demension seeing | vision |
| strabismus | struh BIZ mus | G | squinting | vision |
| striate | STRY ate | L | striped | vision |
| tapetum lucidum | tuh PEE tum / LOO sid um | L | bright carpet/tapestry | vision |
| vitreous | VEE tree us | L | glass | vision |

Table 1. Neuroscience terms, accepted pronunciations, original language (E = English, F = French, G = Greek, Ger = German, L = Latin), literal meaning, and general category.