Greek and Latin in Scientific Terminology, Lecture 10

Andrew Dunning

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# Suffixes III

## -itude

* ‘quality of’, ‘state of’ (*-itudo*)
* longitude, multitude, gratitude

## -ity (-ety, -ty)

* ‘quality of’, ‘state of’ (*-itas*)
* gravity, dexterity, brevity

## -ance, -ancy; -ence, -ency

* ‘quality of being’, ‘state of being’ (*-antia, -entia*)
* vigilance, hesitancy, eloquence, innocence, fluency

## -or

* ‘she or he who’, ‘that which’ (*-or*)
* actor, motor, victor, incisor

## -ion

* ‘act of’, ‘state of’, ‘result of the of’ (*-io*)
* action, commotion, incision

## -ure

* ‘act of’, ‘result of the act of’ (*-ura*)
* rupture, capture, fracture

## -us

* ‘act of’, ‘result of the act of’
* prospectus, consensus, impetus

## -or (-our)

* ‘state of’, ‘result of the act of’
* tumour, pallor, error

## -men, -min-

* ‘result of’, ‘means of’, ‘act of’ (*-men*)
* specimen, regimen, acumen, acuminate

## -ment (*-mentum*)

* ‘result of’, ‘means of’, ‘act of’
* ligament, ferment, excrement, momentum

## -ble, -bul- (*-bula, -bulum*)

* ‘result of the act of’, ‘means of’, ‘place for’
* fable, fabulous, mandible, mandibular, pabulum, infundibulum

## -cle, -cul- (*-culum*)

* ‘result of the act of’, ‘means of’
* spectacle, receptacle, obstacle, tentacle, tentacular, curriculum, vinculum, tentaculum

## -crum, -cr-

* ‘result of the act of’, ‘means of’
* fulcrum, simulacrum, involucrum, involucral

## -trum, -tr-

* ‘result of the act of’, ‘means of’
* spectrum, rostrum, claustrum, claustrophobia

# Roots, Part I

## ADIP-

* ‘fat’ (*adeps*)
* ADIP-os-ity, corpulence, obesity

## CALL-

* ‘hard skin’ (*callus*)
* CALL-ous, pertaining to an are of hardened and thickened skin, a CALLUS; CORPUS CALLOSUM, a structure of white matter in the brain

## CRE-, CRESC-, CRET-

* ‘to grow’
* in-CRE-ment; CRESC-ent; CRESC-endo; con-CRESC-ence, a growing together of the roots of two teeth; inter-CRESC-ence, a growing into each other, as of tissue

## FA-, FAT-

* ‘to speak’
* af-FA-ble; in-ef-FA-ble; FA-ble; in-FA-nt, a child, usually up to two years (in Latin, literally ‘not speaking’ or ‘without speech’)

## FLU-, FLUX-

* ‘to flow’; FLUVI-, ‘river’ (*fluvius*)
* in-FLU-ence; FLU-ency; af-FLUX, flow of blood or other fluid to a part; con-FLU-ent, running together, the opposite of discrete; in anatomy, coalesced or blended (applied to two or bones originally separate)

## FOSS-

* ‘ditch’, ‘trench’, ‘to dig’ (*fossa*)
* FOSSA, a pit or trench-like depression; FOSS-ette, a small pit or a socket containing the base of the antennule in arthropods; FOSS-ori-al, adapted for digging (applies to the claws and feet of animals)

## MAGN-

* ‘large’, ‘great’ (*magnus*)
* MAGN-ate; MAGN-ANIM-ous; MAGNI-LOQU-ent; MAGNI-fy, cause to appear larger; MAGN-itude, spacial quality or size

## MAMM-

* ‘breast’ (*mamma*)
* MAMM-al; MAMM-il-itis, inflammation of the MAM-illa, or nipple

## MORT-

* ‘death’ (*mors*)
* MORT-al, liable to death or causing death; MORT-al-ity, the quality of being mortal or the death rate; NATI-MORT-al-ity, the proportion of stillbirths to the general birth rate

## NOC-, NOX-

* ‘harm’ (*noxa*)
* in-NOC-ent; NOCI-FENS-or, efferent fibres which release chemical substances at their terminals, thus stimulating pain endings; NOCI-per-CEPT-ion, perception of pain by the central nervous system

## PAT-

* ‘to spread or lie open’
* PAT-ent, open, exposed; pre-PAT-ent period, the period in parasitic disease between the introduction of the organism and its demonstration in the body

## PET-, PETIT-

* ‘to seek’
* PET-it-ion; com-PET-it-ion; PET-ul-ant; RECTI-PET-al-ity, the tendency to rectilinear growth; ACRO-PET-al, ascending (applies to leaves, flowers or roots developing successively from an axis so that the youngest arise at the apex)

## PROPRI-

* ‘one’s own’ (*proprius*)
* ap-PROPRI-ate; ex-PROPRI-ate; im-PROPRI-ety; PROPRIO-SPIN-al, pertaining wholly to the spinal cord (applies to fibres)

## SEC-, SEG-, SECT-

* ‘to cut’
* in-SECT; re-SECT-ion, the operation of cutting out as the removal of a segment or section of an organ; SECT-or-ial, formed or adapted for cutting, as certain teeth

## SED- (-SID-), SESS-

* ‘to sit’, ‘to settle’
* re-SIDE; pre-SID-ent; SESS-ion; in-SESS-or-ial, adapted for perching; re-SID-ual, pertaining to that which cannot be evacuated or discharged (as residual air in the lungs, residual urine in the bladder)

## SET-

* ‘bristle’ (*seta*)
* SETA, any bristle-like structure, as the sporophore of liverworts and mosses; SETI-GER, a segment or process bearing bristles

## TRACT-

* ‘to draw’, ‘to drag’
* TRACT-or; at-TRACT-ive; dis-TRACT-ile, widely separate (usually applies to long-stalked anthers); CEPHALO-TRACT-or, obstetric forceps

## TUBER-

* ‘swelling’ (*tuber*)
* TUBER, a thickened, fleshy underground stem with surface buds; TUBER-iform, resembling or shaped like a tuber; TUBER-in, a simple protein of the globular type which occurs in potatoes

## VEH-, VECT-

* ‘to carry’
* ad-VEH-ent, afferent, carrying to an organ; con-VECT-ion, a transmission or carrying, as of heat; VECT-or

## VIT-

* ‘life’ (*vita*)
* VIT-al, pertaining to or necessary for life; AQUA VITAE, spirit or eau-de-vie

# Pluralization

## Dirckx and Leider (1981)

* When dealing with Latin nouns and adjectives in their original form, there are several different ways of pluralizing them.
* This follows a consistent pattern, follows the word's declension and gender (i.e. grammatical categorization).
* Words that have been anglicized, on the other hand, tend to follow English conventions.
  + For example, the correct Latin plural of *apparatus* (fourth declension, masculine) is *apparatus*, but in English it more typically *apparatuses*.
* How can you figure this out without memorizing the full forms of Latin words and the tables of declensions? A medical dictionary such as Taber's will provide the plural forms for technical words.
* Failing that, use the [Perseus Word Study Tool](http://perseus.tufts.edu/hopper/morph?la=latin), which will tell you the word's declension, gender, and case. If necessary, you can then look up a table of Latin nouns (as the one in this article) to find out what form the plural takes.

## First Declension

* *-a* (occasionally *-e*) becomes *-ae*.
* Feminine and masculine words have the same form.
* areola, areolae; fossa, fossae; lamina, laminae

## Second Declension

* Masculine: *-us* and *-er* (occasionally *-os*) become *-i*.
* Neuter: *-um* (occasionally *-on*) becomes *-a*.
* cactus, cacti; sulcus, sulci; bacillus, bacilli
* puer, pueri; ager, agri

## Third Declension

* Masculine and feminine: words with various endings are pluralized with *-es*.
* Neuter: plural in *-a*.
* These are words in which the declined form is based on the genitive (possessive) form rather than the typical nominative form (i.e. the form the word takes when it is the subject).
* For example, the plural of *mens* (genitive *mentis*) is *mentes*.
* viscus (visceris), viscera; corpus (corporis), corpora; crus (cruris), crura

## Fourth Declension

* Masculine and feminine: *-us* remains *-us*.
* Neuter: *-u* becomes *-a*.
* ductus, ductus; fetus, fetus; meatus, meatus

## Fifth Declension

* Masculine and feminine: *-es* remains *-es*.
* canities, canities; scabies, scabies

# Roots, Part II

## CAV-

* ‘hollow’ (*cavus*)
* CAVI-CORN, hollow-horned; inter-CAV-it-ary, within a CAV-ity

## COCT-

* ‘to cook’, ‘to boil’
* con-COCT-ion, preparation made by combining different crude ingredients; COCTO-STA-ble, able to withstand the temperature of boiling water without change

## CUT-, CUSS-

* ‘to shake’, ‘to strike’
* con-CUSS-ion, shock, the state of being shaken, a severe shaking or jarring of a part; per-CUSS-ion, the act of firmly tapping the surface of the body with a finger or a small hammer to elicit sounds or vibratory sensations of diagnostic value

## DOL-

* ‘to feel pain’, ‘to cause pain’
* con-DOL-ence; in-DOL-ent, sluggish, usually applied to slowness in healing or growing, as an indolent ulcer, or causing little or no pain, as an indolent tumour

## EBURN-

* ‘ivory’ (*ebur, eburnus*)
* EBURN-eous, ivory white, white more or less tinged with yellow; EBURN-itis, increased hardness and density of the tooth enamel

## FENESTR-

* ‘window’, ‘opening’ (*fenestra*)
* FENESTR-ate, having small perforations or transparent spots (applies to insect wings); CRANIO-FENESTR-ia, congenital bony defect involving the total thickness of the skull, lacuna skull

## GLUTIN-

* ‘glue’ (*gluten*)
* GLUTEN, a mixture of proteins found in the seeds of cereals, which confers the property of toughness to dough; GLUTIN-ous, viscid, gluelike

## HI-, HIAT-

* ‘to stand open’
* HIAT-us, a space or opening; de-HI-sc-ence, the spontaneous opening of an organ or structure along certain lines in a definite direction; in-de-HI-sc-ent, not splitting at maturity (applies to certain fruits)

## I-, IT-

* ‘to go’
* in-IT-ial; ex-IT; ob-IT-uary; amb-IT-us, the outer edge or margin or the outline of an echinoid shell viewed from the apical pole; ab-I-ent, tending away from the source of stimulus (opp. ad-I-ent)

## LAMIN-

* ‘thin plate’ (*lamina*); LAMELL-, dimin. (*lamella*)
* LAMIN-ate; LAMELLA, a plate or layer; LAMELLI-CORN, having antenna joints expanded into flattened plates; LAMIN-ectomy, surgical removal of one or more neural laminas of the vertebrae

## LAT-

* ‘broad’, ‘wide’ (*latus*)
* di-LAT-ion; LATI-SQUAM-ate, broad-scaled

## LIG-

* ‘to bind’
* ob-LIG-at-ion; al-LIG-at-or; LIG-ament, a band of tough, flexible connective tissue; LIG-at-ure, a cord or thread for tying vessels or the act of tying or binding

## MEAT-

* ‘to go’, ‘to pass’
* MEATUS, an opening or passage; MEAT-itis, inflammation of the wall of a meatus; SUPRA-MEAT-al, applies to triangle and spine over external acoustic meatus

## MIT(T)-, MIS(S)-

* ‘to send’, ‘to let go’
* e-MISS-ary, any venous channel through the skull connecting the venous sinuses with the diploic veins and veins of the scalp; intro-MISS-ion, insertion, the act of putting in, the introduction of one body into another

## PLEX-

* ‘to interweave’, ‘to braid’
* PLEXUS, a network of interlacing nerves or anastomosing blood vessels or lymphatics; PLEX-iform, resembling a plexus or network; PLEX-ODONT, having molar teeth with complicated crown patterns and multiple roots

## PUNG-, PUNCT-

* ‘to prick’, ‘point’ (*punctum*)
* com-PUNCT-ion; PUNCT-uate; PUNCT-il-ious; PUNCT-iform, having the nature of qualities of a point, or seeming to be located at a point (of a sensation), or in bacteriology, very minute colonies; PUNG-ent, ending in a rigid and sharp point

## RIG-

* ‘to be stiff’
* RIG-id, stiff or hard; RIG-esc-ent, becoming rigid; RIGID-itas, stiffness, rigidity

## RUB(R)-

* ‘red’ (*ruber*)
* BILI-RUBR-in, a reddish-yellow pigment of bile and blood; RUBIGIN-ose, of a brownish-red tint, rust-coloured; e-RUB-esc-ent, blushing red

## SCRIB-, SCRIPT-

* ‘to write’
* de-SCRIBE; pre-SCRIBE; sub-SCRIBE; circum-SCRIPT, a marginal sphincter when sharply defined, as in sea anemones

## VOLV-, VOLUT-

* ‘to roll’, ‘to turn’
* in-VOLVE; re-VOLUT-ion; VOLUTE; ob-VOLUTE, bent downward and inward (applies to wings, elytra of insects); VOLV-ulus, a twisting of the bowel upon itself so as to occlude the lumen

# Roots, Part III

## AG-, ACT-

* ‘to do’, ‘to drive’, ‘to act’
* ACT-ion; AG-ile; CUTI-re-ACT-ion, a local skin reaction following inoculation with or the application of extracts of pathogenic organisms

## ALB-

* ‘white’ (*albus*)
* ALBI-FACT-ion, the act or process of blanching or rendering white; ALBUM-in, a protein substance found in nearly every animal and some vegetable tissue; ALBUR-num, sapwood or splint wood (i.e., the soft, white substance between the inner bark and true wood)

## CER-

* ‘wax’ (*cera*)
* CERI-FER-ous, wax-bearing, waxy; CERE-ous, waxy

## FIL-

* ‘thread’ (*filum*)
* FILI-GER-ous, with threadlike outgrowths or flagella; FIL-ar-iasis, a diseased state due to the presence of nematode worms of the super family Filarioidea

## FOR-

* ‘to bore’, ‘to pierce’
* FOR-amen, the opening through the coats of an ovule, or any small perforation; FOR-amin-ule, a minute foramen; FOR-amini-FER-a, an order of protozoans with calcareous shells with minute openings for pseudopodia

## FOV-

* ‘pit’ (*fovea*)
* FOVEA, a small pit, fossa or depression, or a small hollow at leaf base; FOVE-ate, pitted; FOVE-ol-ate, having regular, small depressions

## FUNG-

* ‘mushroom’, ‘fungus’ (*fungus*)
* FUNGI-VOR-ous, fungus-eating animals and plants; FUNG-at-ion, the act of growing up rapidly, like a fungus (as certain pathologic growths); FUNG-os-ity, fungous excrescence, fungous quality

## GLOMER-

* ‘ball of yarn’ (*glomus*)
* GLOMUS, a fold of the mesothelium containing a ball of blood vessels; con-GLOMER-ation, that which is made up of parts from various sources

## HAL-, HALIT-

* ‘to breathe’
* HALIT-us, a vapour, as that expired by the lungs; HALIT-osis, the state of having offensive breath

## MUC-

* ‘mucus’ (*mucus*)
* MUCI-fic, mucus-secreting; MUCO-CUT-aneous, pertaining to skin and mucous membrane

## NUTRI-, NUTRIT-

* ‘to nourish’
* NUTRIC-ism, a relationship of two animals with all the benefit to one partment; NUTRI-ent, that which affords nutrition

## PALP-

* ‘to touch’, ‘to stroke’
* im-PALP-able, not capable of being felt, imperceptible to touch; PALP-it-at-ion, any heart action of which the patient is conscious PALPO-CIL, a stiff, sensory filament attached to sense cells of Hydromedusae

## SEP-, SEPT-

* ‘to separate’, ‘wall’ (*septum*)
* SEPTUM, a partition, a dividing wall between two spaces or cavities; e-SEPT-ate, not supplied with septa; SEPT-ectomy, excision of part of the nasal septum

## SPIR-

* ‘to breathe’
* SPIRIT; con-SPIRE; a-SPIR-at-or, a negative pressure apparatus for withdrawing liquids from cavities; su-SPIR-at-ion, a sigh, the act of sighing; tran-SPIR-at-ion, exhalation of vapour through pores or stomata

## STRU-, STRUCT-

* ‘to construct’, ‘to build’
* STRUCT-ure; de-STRUCT-ion; ob-STRU-ent, obstructing, tending to obstruct

## TERMIN-

* ‘end’, ‘boundary’ (*terminus*)
* ab-TERMIN-al, going from the end inward; at-TERMIN-al, toward the terminal; co-TERMIN-ous, having the same or coincident boundaries

## UMBR-

* ‘shade’, ‘shadow’ (*umbra*)
* UMBR-age; ad-UMBR-ate; ex-UMBR-al, pertaining to the rounded upper surface of a jellyfish; ob-UMBR-ate, with some structure overhanging the parts so as partially to conceal them; UMBR-aculum, any umbrellalike structure

## UNGU-

* ‘nail’ (of finger or toe) (*unguis*)
* UNGUI-FER-ate, having nails, claws or hooklike processes; UNGUI-cul-ata, Mammalia with nails or claws as distinguished from hoofed mammals and cetaceans

## VEL-

* ‘veil’, ‘covering’ (*velum*)
* VELUM, a membrane or structure similar to a veil; VELI-GER, second stage in larval life of certain molluscs when the head bears a velum

## VISCER-

* ‘entrails’ (*viscus*)
* e-VISCER-at-ion, removal of internal organs; VISCERO-SENS-ory, relating to sensation in the viscera