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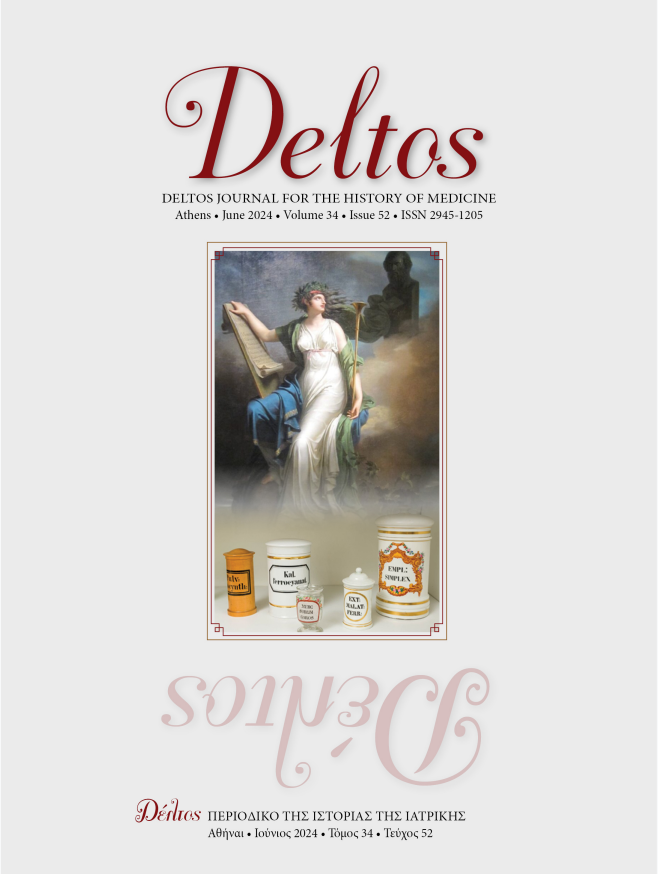

On some ancient Greek and Latin medical recipes in verse. Their position in the world. Part A

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On some ancient Greek and Latin medical recipes in verse. Their position in the world

Part A

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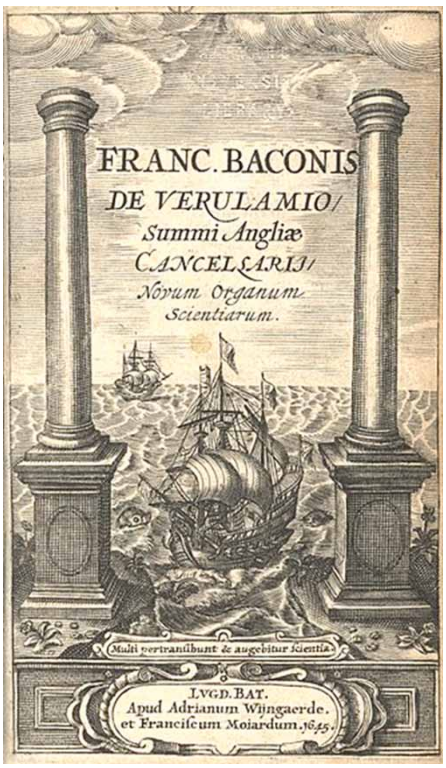

Figure 1. The title page of Francis Bacon's the "Novum Organum" (1620 AD).

Abstract

In Part A of our article, we examine medical recipes in verse within Greek literature, spanning from the Hellenistic period to the Roman Imperial era. We also briefly touch upon analogous recipes in Classical and Late Latin, as these two literary forms were intertwined for centuries. A comprehensive analysis of Latin literature in this domain remains a necessity. We explore the motivations behind these didactic poems and the metrical patterns employed in their composition. The article presents fragments of these recipes, all translated into English and several retained in their original language as well, arranged chronologically alongside succinct biographical details of their authors. These include Homer, considered

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their distant forebear, followed by Ovid, Aglaias of Byzantium, Andromachus the Elder, Philo of Tarsus, Damocrates, Nicander, Rufus of Ephesus, Eudemus of Pergamum, Galen, Serenus Sammonicus, The Carmen graecum de herbis, and Marcellus Empiricus. In Part B, we will continue to explore similar recipes from the Middle and Late Byzantine periods. This section will also feature examples from Medieval Latin and Islamic medical literature, illustrating the intercultural context in which these Greek verses stood. A General Discussion and Conclusions will be provided at the end of Part B.

Key Words: *didactic poetry, Aglaias of Byzantium, Philo of Tarsus, Damocrates, Marcellus Empiricus, Andromachus the Elder, Nicander*

Introduction

The integration of various disciplines is a cornerstone upon which the field of medicine was established. From its inception, medicine has consistently been intertwined with other domains of cultural expression. This phenomenon is evident in combinations such as Medicine and Religion, Medicine and Cosmology, Medicine and Philosophy, Medicine and Astronomy, as well as Medicine with Chemistry, Biology, and Anatomy. These interdisciplinary pairings have become so ingrained that Plato argued that medicine, being a science founded on volatile and inconsistent views of the world, does not constitute pure knowledge in the manner of mathematics.[1] In contrast, the amalgamation of medicine and poetry represents a distinctly unique fusion. Unlike the scientific nature of its usual counterparts, poetry is a form of artistic expression, comprising two fundamental styles: verse and prose. This distinction holds true across oral and written communication, as well as in music. It is highly probable that, as medicine in the beginning was bound with religion in the form of shamanism, oral incantations incorporated common medical instructions. The connection between medicine and music is somewhat fragile, better described as a partnership rather than a union. Alternatively, using one of Derrick Dunlop's memorable and apt expressions, it is a state of happy symbiosis.[2]

This phenomenon extended beyond the realm of medicine. In history, oral poetry served as the precursor to written records, with the Homeric epics standing out as prominent examples. According to Hesiod (8th century BC), it was "*the blonde Harmony who gave birth to the nine Muses*". In his book "Works and Days" (Ἔργα καὶ Ἡμέραι), which consists of 828 hexameters, Hesiod uses didactic verses that later inspired Vergil's "Georgicon" (29 BC) and Lucretius' "On the Nature of Things" (50 BC) ("De rerum natura"). These references underscore the longstanding association between poetry, sciences, and moral philosophy from ancient times. Plato, in the 4th century BC, provided a theoretical framework linking medicine and music in his "Symposium". In this, the physician Eryximachus asserts that *"In medicine one should try to gratify the good and healthy parts of the body while depriving the diseased parts of the body of any satisfaction so that they will cease to be diseased. The doctor's role, then, is to implant one type of love in the body and flush the wrong kind out in order to reconcile and create love between the antagonistic elements of the body, such as hot and cold, and dry and wet.[…] Anyone who pays the least attention to the subject will also perceive that in music there is the same reconciliation of opposites […] In like manner rhythm is compounded of elements short and long, once differing and now-in accord; which accordance, as in the former instance, medicine, so in all these other cases, music implants, making love and unison to grow up among them; and thus music, too, is concerned with the principles of love in their application to harmony and rhythm*".[3] Based on this cultural heritage, medical authors started very early on to write medical works in verse, either as whole treatises or as passages in a greater poem with a different context or as an "abstract", a seal, a "sphragis" before or after an extended treatise in prose.[4]

Focusing only on the Greco-Roman world, the earliest instances are observed in Homer's Odyssey, dating from the 8th century BC, followed by the works of the Presocratic philosophers in the 6th and 5th centuries BC. Figures such as Xenophanes, Parmenides, and Empedocles are notable for incorporating verse into their treatises.[5] The practice persisted into the Classical period but saw significant expansion during the Hellenistic and Imperial Roman periods. These poetic recipes broadly fall into two categories: those laden with metaphors and riddles that require interpretation, and those that employ verse to aid memorisation through rhythmic structure and uncomplicated poetic imagery. After a lapse post the 4th century AD, this tradition resurged robustly during the Middle and, predominantly, the Late Byzantine periods. A similar revival occurred in the Latin West during the late Middle Ages and early

Renaissance. This revival, grounded in the rediscovery of classical Didactic literature, vigorously promoted the composition of scientific poetry. Concurrently, the renaissance of classical criticism, particularly on Aristotle's «Poetics», rekindled debates regarding the legitimacy of such poetic forms.[6]

In today's multifaceted global context, confining this discussion to the classical era of antiquity overly emphasises the Greek legacy while failing to contextualise it temporally and geographically. Consequently, this article will also explore corresponding literary expressions from various cultures that emerged simultaneously. This departure from the strictly Greco-Roman perspective mirrors the ideas of Francis Bacon, as illustrated on the title page of his "Novum Organum" (1620 AD). This image depicts a galleon navigating through the mythical Pillars of Hercules, which flank the Strait of Gibraltar, signifying an exit from the familiar waters of the Mediterranean to the uncharted expanses of the Atlantic Ocean (Fig. 1). It symbolises the relinquishment of classical scientific theories in favour of empirical observation and experimentation. According to Plato, the fabled Atlantis lay beyond these Pillars of Hercules, placing it within the realm of the Unknown. This concept finds lyrical expression in Pindar's (476 BC) hymn of Theron:

εἰ δ' ἀριστεύει μὲν ὕδωρ, κτεάνων δὲ
χρυσὸς αἰδοιέστατος,
νῦν δὲ πρὸς ἐσχατιὰν
Θήρων ἀρεταῖσιν ἱκάνων ἅπτεται
οἴκοθεν Ἡρακλέος
σταλᾶν. τὸ πόρσω δ' ἐστὶ σοφοῖς ἄβατον
κἀσόφοις. οὔ νιν διώξω· κεινὸς εἴην.

"If water is best and gold is the most honoured of all possessions, so now Theron reaches the farthest point by his own native excellence; he touches the pillars of Heracles. Beyond that the wise cannot set foot; nor can the unskilled set foot beyond that. I will not pursue it; I would be a fool".[7] During the Renaissance, it was believed that inscriptions on the pillars claimed "*Nec plus ultra*" (nothing further beyond), cautioning sailors and navigators against venturing further. The engraving virtually copied the front page of Andrés García de Céspedes' *Regimiento de navegación* (the Rules of Navigation) from 1606 (Fig. 2), which he did not credit. This title page celebrated the Iberian sailors who transcended the Mediterranean's limits, paving the way to the New World.

Bacon ingeniously incorporated the Latin phrase "*Multi pertransibunt & augebitur scientia*" — meaning

Figure 2. The front page of Andrés García de Céspedes' *Regimiento de navegación* (the Rules of Navigation), 1606.

"*Many will travel and knowledge will be increased*" — from the Old Testament (Daniel 12:4) at the bottom of this engraving. Bacon's use of this quote reinterpreted the angel's instruction to Daniel, to align it with the Enlightenment's pursuit of scientific knowledge. This adaptation reflects a cultural manipulation that we acknowledge and embrace, hoping, as Bacon did, that breaking the boundaries imposed by Classical literature will enhance our understanding of the composition of medical prescriptions in verse.

Method

In Part A of our article, we explore various poetic recipes written in Greek, Classical Latin, and Late Latin, including succinct biographical details of the authors. Where available, these recipe fragments are presented in their original language alongside an English translation. Part B will offer a concise overview of select recipes from the Late Middle Ages and Early Renaissance. These recipes, written in Byzantine language and in Medieval Latin and vernacular languages of the West, as well as in languages slightly removed from the Greco-Roman sphere until the 17th century, will be examined to underscore their significance in the history of pharmacology.

Results

We present our collected versified pharmacological recipes in chronological order.

8th cent. BC

Homer

ἔνθ᾽ αὖτ᾽ ἄλλ᾽ ἐνόησ᾽ Ἑλένη Διὸς ἐκγεγαυῖα·
αὐτίκ᾽ ἄρ᾽ εἰς οἶνον βάλε φάρμακον,
ἔνθεν ἔπινον, 220
νηπενθές τ᾽ ἄχολόν τε, κακῶν ἐπίληθον ἁπάντων.
ὅς τὸ καταβρόξειεν, ἐπὴν κρητῆρι μιγείη,
οὔ κεν ἐφημέριός γε βάλοι κατὰ δάκρυ παρειῶν,
οὐδ᾽ εἴ οἱ κατατεθναίη μήτηρ τε πατήρ τε,
οὐδ᾽ εἴ οἱ προπάροιθεν ἀδελφεὸν
ἢ φίλον υἱὸν 225
χαλκῷ δηιόῳεν, ὁ δ᾽ ὀφθαλμοῖσιν ὁρῷτο.
τοῖα Διὸς θυγάτηρ ἔχε φάρμακα μητιόεντα,
ἐσθλά, τά οἱ Πολύδαμνα πόρεν, Θῶνος παράκοιτις
Αἰγυπτίη, τῇ πλεῖστα φέρει ζείδωρος ἄρουρα
φάρμακα, πολλὰ μὲν ἐσθλὰ μεμιγμένα
πολλὰ δὲ λυγρά· 230
ἰητρὸς δὲ ἕκαστος ἐπιστάμενος περὶ πάντων
ἀνθρώπων· ἦ γὰρ Παιήονός εἰσι γενέθλης.[8]

Then Helen, daughter of Zeus, took other counsel. [220] Straightway she cast into the wine of which they were drinking a drug to quiet all pain and strife, and bring forgetfulness of every ill. Whoso should drink this down, when it is mingled in the bowl, would not in the course of that day let a tear fall down over his cheeks, [225] no, not though his mother and father should lie there dead, or though before his face men should slay with the sword his brother or dear son, and his own eyes beheld it. Such cunning drugs had the daughter of Zeus, drugs of healing, which Polydamna, the wife of Thon, had given her, a woman of Egypt, for there the earth, the giver of grain, bears greatest store [230] of drugs, many that are healing when mixed, and many that are baneful; there every man is a physician, wise above human kind; for they are of the race of Paeeon.[9]

1st cent. BC/1st cent. AD

Ovid

Ovid was born in Sulmo (now Sulmona, Italy) in the Roman Empire and died at Tomis (present-day Constanța, Romania), exiled by Emperor Augustus, presumably due to some misdemeanour on Ovid's part. Renowned as a prolific poet, he is best known for his seminal work "Metamorphoses". We will focus on another of his works, the "Medicamina Faciei Femineae", a somewhat frivolous didactic elegy based on an unidentified prose work on cosmetology. This poem delves into female beauty and cosmetics, highlighting the concept of 'cultus'. It includes five practical recipes for cosmetic treatments used by Roman women. Ovid used the elegiac couplet, a metrical form favoured in pharmacological verses, which juxtaposes a dactylic hexameter with a dactylic pentameter. Ovid himself described the appealing yet limb rhythm of elegiac couplets:

Venit odoratos Elegia nexa capillos,
et, puto, pes illi longior alter erat.
Forma decens, vestis tenuissima, vultus amantis,
et pedibus vitium causa decoris erat.

(Am. 3.1.7–10, Perseus Project, R. Ehwald, Ed, 1907)
In English:

"Elegy appeared: her hair tied in scented locks and,
I believe, one of her feet was longer than the other.
She had a shapely figure, the most delicate dress,
a face for love, and the flaw in her feet was the source of her grace".
(Translator: David Andrew Ostiarius (Porter). 26 August 2023)

We quote few lines from the The Medicamina Faciei Femineae:

l. 53 -68.
Hordea, quae Libyci ratibus misere coloni,
exue de palea tegminibusque suis:
par ervi mensura decem madefiat ab ovis
sed cumulent libras hordea nuda duas.
Haec, ubi ventosas fuerint siccata per auras,
lenta iube scabra frangat asella mola.
Et quae prima cadent vivaci cornua cervo
contere – in haec solidi sexta fac assis eat. 60
Iamque ubi pulvereae fuerint confusa farinae,
protinus innumeris omnia cerne cavis;
adice narcissi bis sex sine cortice bulbos
(strenua quos puro marmore dextra terat)
sextantemque trahat gummi cum semine Tusco; 65
huc novies tanto plus tibi mellis eat.
Quaecumque afficiet tali medicamine vultum,
fulgebit speculo levior illa suo.

[…]
p. 46
Strip the barley, which farmers from Libya have sent by ship,
of its husks and coverings:
an equal measure of bitter vetch is soaked
in ten eggs: 55
but the stripped barley should amount to two librae.
Once dried by gusty breezes, have these

crushed on a rough millstone by a slow she-ass.
Grind into this the first horns that fall from a long-lived stag –
see that a sixth of a whole as goes in. 60
Next, having mixed this into the pounded meal, you must
immediately sift every last granule through closely-meshed strainers;
add twelve narcissus bulbs minus the rind
(which a vigorous right-hand should grind on clean marble)
and let gum along with Tuscan seed weigh one-sixth of an as; 65
into it let there go nine times as much honey.
Any woman who applies this treatment to her face, will gleam more smoothly than her own mirror.[10]

1st cent. AD

a. Aglaias of Byzantium

Aglaias of Byzantium, a 1st century AD Hellenistic poet, composed a riddle poem in 28 elegiac couplets for the treatment of cataracts, including various drug weights:

"l. 10 *"Five obols of the flower of copper, and the same weight of the lovely mother of him that was slain by a boar. Add too one obol less than these of the fiery grain which grows in the Callatican fields; and also, twice the weight of two drachmas, one from the tawny-haired flower, and take the other from the genitals of the tamer of horses, of which let half the weight be of the pseudonymous father who gave his daughter in marriage to the son of a female slave".*

The text is replete with references to Homer and other myths, comprehensible only to someone as erudite as Aglaias. A number of points of interest reveal the poet's attempt at originality. The first appears in line 10, which mentions the enigmatic "lovely mother of him who was slain by a boar", hinting at Adonis, who was killed by a boar. His mother, Smyrna, was transformed into the namesake tree upon her death. Accordingly, the poem makes a reference to smyrna, also known as myrrh, recommending the use of five obols thereof. Several other similar mythological allusions are used to decipher the whole recipe.[11]

b. Andromachus the Elder

Andromachus the Elder served as a physician to Emperor Nero. He developed a medicinal recipe named galēnē, a variation of thēriakē, designed to counteract snakebites, written as a poem comprising eighty-seven elegiac distichs and dedicated to the emperor. It remained in use for many centuries thereafter. Andromachus' extensive botanical knowledge helped him to "provide mankind with the necessary medicines".[12] The poem is referenced by Galen, who notes that Andromachus chose a poetic format to aid memorisation and to minimise the risk of alterations.[13] The English translation of its opening reads*: "Hear the vigorous power of the antidote of many virtues Caesar, giver of the peaceful freedom. Listen, Nero; it is called Galene, cheerful and serene, which does not worry about the dark ports, neither is it defeated if one would drink avidly from a hateful cup in which has been squeezed bundles of poppy".*[14]

c. Philo of Tarsus

A prime example demonstrating this approach in existing pharmacological literature is the Philonium, an antidote for colic developed by Philo of Tarsus (1st century AD?). It is described in 13 elegiac distichs, which have been preserved thanks to citations by Galen.[15] In these verses, the antidote itself is personified and speaks in the first person, listing various symptoms and conditions it can treat in addition to colic. This list notably includes a caution that it is effective solely among the sophoi, or "wise persons":

[…] γέγραμμαι δὲ σοφοῖσι, μαθὼν δέ τις
οὐ βραχύ μ' ἔξει
δῶρον, ἐς ἀξυνέτους δ' οὐκ ἐπόθησα περᾶν.
ξανθὴν μὲν τρίχα βάλε μυρίπνοον ἰσοθέοιο,
οὗ λύθρος Ἑρμεία<ι>ς λάμπεται ἐν βοτάναις,
†κρόκου† δὲ σταθμὸν φρένας ἀνέρος·
οὐ γὰρ ἄδηλον· 15
βάλε δὲ καὶ δραχμὴν Ναυπλίου Εὐβοέως,
καὶ τρίτου ἐν Τρώεσσι Μενοιτιάδαο φονῆος
δραχμὴν τὴν μήλων γαστέρι σῳζομένην.
ὁλκὰς δ' ἀργεννοῖο πυρώδεος εἴκοσι βάλε,
εἴκοσι καὶ κυάμου θηρὸς ἀπ' Ἀρκαδίης, 20
δραχμὴν καὶ ῥίζης ψευδωνύμου, ἣν ἀνέθρεψε
χῶρος ὁ τὸν Πίσῃ Ζῆνα λοχευσάμενος.
πῖον δὲ γράψας, ἄρθρον βάλε πρῶτον ἐπ' αὐτῷ
ἄρρεν, ἐνὶ δραχμαῖς πέντε δὶς ἑλκόμενον,
νᾶμα δὲ θυγατέρων ταύρων χέε Κεκροπίδαισι 25
συγενές, οὐκ Τρίκκης ὡς ἐνέπουσιν ἐμοί.

In the English translation by Overduin.[11]
"I have been written for wise
men, and someone who has learned me will have me as no mean gift, but I do not long to pass over to those who lack comprehension. Add yellow hair

breathing sweet unguents of the godlike one, of which the blood shines in Hermes' fields, and the (number of the) senses of man worth to the weight (of drachms) of [Crocus]: it is not obscure. Also add a drachm of Nauplius of Euboea, and a drachm of the third slayer of Menoites' son among the Trojans, preserved in the stomach of sheep. Add twenty drachms of the white fiery one, and twenty of the bean of the Arcadian swine, and a drachm of the pseudonymous root, which the land that begot Zeus in Pisa brought forth. When you have written pion, first add the article to it, the masculine one, taking five drachms of it twice, and pour the stream of the daughters of bulls akin to the Daughters of Cecrops, as the inhabitants of Tricca tell me"

The poem, like the previous one by Aglaias, contains several riddles. Its playful approach of replacing certain ingredients with mythological riddles appealed to both doctors and cultured individuals in the intellectual milieu of the Second Sophistic period. This poetic hybrid also plays on various genres that have their roots in the Hellenistic era that preceded it. Moreover, it constitutes an illustrative example of the emergent subgenre of elegiac pharmacology, in an era when the elegiac form had almost completely disappeared from Greek literature. The first riddle, despite its teasing end (οὐ γὰρ ἄδηλον, 'it is not obscure!') is hard to solve. The mention of yellow (ξανθήν, 13) hair refers to the appearance of fragrant yellow saffron (κρόκος), the slender strands of which closely resemble hair. The tale is associated with Hermes through the young Crocus (Κρόκος), who was accidentally killed by Hermes during a discus game. Moved by the boy's plight, the gods transformed him into a flower—saffron, distinct from the modern crocus—thereby immortalising his unfortunate end. The flower's radiant appearance symbolises the blood (λύθρος in 14) of the youth metamorphosed into a plant, which is here called Hermes' plant, as the god ostensibly 'claimed' it following his loss […].

Intriguingly, the reference in line 17 of Philo's text to Euphorbus, a hero of the Trojan War, *as the third slayer of Menoites' son among the Trojans*, connects back to the plant named εὐφόρβιον ('spurge'). If Philo's addressee can discern this link, he will tie the Trojan hero to the plant. The θήρ (ther) in question—and the key to solving the riddle—is thus a boar. While boars, like the infamous Erymanthian one, are typically termed κάπρος, Philo's reference here is to a ὗς (ys, female boar), which also applies, albeit less commonly, to the Arcadian beast. The recipe should thus include twenty drachms of κύαμος (kyamos) from the ὗς (κύαμος ὑός/ὑὸς κύαμος), colloquially known as the 'bean of the boar'. However, the subtlety lies in the wordplay, as ὑοσ-κύαμος (Hyoscyamos), or 'henbane', is the actual ingredient required. This intricate riddle not only demands a deft command of language from the reader but also a familiarity with a renowned myth.[16]

Interestingly, Galen, in a self-display of his erudition, expounded upon Philo's recipe. Nonetheless, the 'philonion', despite being recognised by Quintus Serenus, did not receive his approval. He critically remarked, "What can be said of Philo's complex recipes and the myriad antidotes? Let those of affluence concern themselves with these; here, I shall focus on remedies that assist the poor".[17]

d. Damocrates

Servilius Damocrates (also known as Democrates; Greek: Δαμοκράτης, Δημοκράτης) was a prominent Greek physician based in Rome during the mid to late 1st century AD. It is speculated that he adopted the praenomen 'Servilius' upon becoming a client of the Servilia gens. Celebrated for his medical expertise, Galen described him as "an excellent doctor", while Pliny regarded him as "*e primis medentium*" ("among the foremost of physicians") and recounted his successful treatment of Considia, the daughter of Marcus Servilius. Damocrates authored numerous pharmaceutical texts in Greek iambic verse, though only the titles and some fragments of these works survive, preserved within Galen's writings.[18]

Totelin presents a few lines from Damocrates' verses that Galen incorporated into the conclusions of his pharmacological works. These lines, which are rendered in the first person, are very likely borrowed from Damocrates' original compositions. The closing triplet of the poem in Types 6 features such a first-person narrative intervention:

1. *I (egō) took away the chalk and added (eballon) twice the amount of alum and I knew (egnōn) that the remedy worked better, as it caused no blisters.*[19]
2. *I noticed (epegnōn) that some use much suet, much marrow, some aromatic substances, juices, and some other perfumes. And, on the contrary, having used them, I knew (egnōn) that such mixtures are vulgar and undistinguished, but that their nature is simple.*[20]

The recipes of various medicaments versified by Servilius Damocrates are sober, not overloaded with

metaphor, rhythmic verses describing the preparation of remedies. In a few words: they are simple, useful, and practical.[21] The final lines of the poems conclude in Types 7, and therefore the final lines of the entire treatise, are also an authorial statement.[22]

e. Plini the Elder

Gaius Plinius Secundus, also known as Pliny the Elder (AD 23/24 – AD 79), was a distinguished statesman, polymath, and prolific writer. His most celebrated work is the "*Naturalis Historia*" (*Natural History*), which set the standard for later encyclopedias and comprised 37 books. Unlike many of his contemporaries, Pliny did not typically employ verses in his writings. However, he did include a notable exception – a verse antidote against venomous creatures. He described this antidote as: *"Et discessu< ri> ab hortensiis unam conpositionem ex his clarissimam subteximus adversus venenata animalia incisam in lapide versibus Coi in aede Aesculapi".*

"*And now that I am about to leave garden plants, I have appended a very famous preparation from them which is used to counteract the poison of venomous animals. It is carved in verse upon a stone in the temple of Aesculapius in Cos:*

And he continues with the instructions:

Take two denarii of wild thyme, and the same quantity of opopanax and meum respectively; one denarius of trefoil seed; and of aniseed, fennel-seed, ammi, and parsley, six denarii respectively, with twelve denarii of meal of fitches. Heat up these ingredients together, and pass them through a sieve; after which they must be kneaded with the best wine that can be had, and then made into lozenges of one victoriatus each: one of these is to be given to the patient, steeped in three cyathi of wine. King Antiochus the Great, it is said, employed this theriaca against all kinds of venomous animals, the asp excepted.". (NH XX 264) (tr. W. H. S. Jones).

2nd cent AD

Nicander

Nicander, who flourished around the 2nd century BC in Claros near Colophon in Ionia, Asia Minor (present-day Turkey), was a Greek poet, physician, and grammarian. Little is known of Nicander's life except that his family held the hereditary priesthood of Apollo at Colophon. Nicander wrote several works in both prose and verse; however, only two have survived to this day. The longest, "*Theriaca*" (Fig. 3), is a hexameter poem consisting of 958 lines that explores the nature of venomous animals and the wounds they inflict. This poem draws extensively on the prose writings of Apollodorus, an earlier writer from the 3rd century BC.

A passage from "*Theriaca*" reads:

"Εἴ γε μὲν ἐκ τριόδοιο μεμιγμένα κνώδαλα χύτρῳ
ζωὰ νέον θορνύντα καὶ ἐν θρόνα τοιάδε βάλλῃς,
δήεις οὐλομένῃσιν ἀλεξητήριον ἄταις·
ἐν μὲν γὰρ μυελοῖο νεοσφαγέος ἐλάφοιο
δραχμάων τρίφατον δεκάδος καταβάλλεο βρῖθος,
ἐν δὲ τρίτην ῥοδέου μοῖραν χοός, ἥν τε θυωροί
πρώτην μεσσατίην τε πολύτριπτόν τε κλέονται,
ἰσόμορον δ' ὠμοῖο χέειν ἀργῆτος ἐλαίου,
τετράμορον κηροῖο· τὰ δ' ἐν περιηγέι γάστρῃ
θάλπε κατασπέρχων ἔστ' ἂν περὶ σάρκες ἀκάνθης
μελδόμεναι θρύπτωνται· ἔπειτα δὲ λάζεο τυκτήν
εὐεργῆ λάκτιν, τὰ δὲ μυρία πάντα ταράσσειν
συμφύρδην ὀφίεσσιν· ἑκὰς δ' ἀπόερσον ἀκάνθας,
καὶ γὰρ ταῖς κακοεργὸς ὁμῶς ἐνιτέτροφεν ἰός·
γυῖα δὲ πάντα λίπαζε καὶ εἰς ὁδόν, ἢ ἐπὶ κοῖτον,
ἢ ὅταν αὐαλέου θέρεος μεθ' ἁλώια ἔργα."
(www.poesialatina.it > ns > Greek Nicander-Theriaca)

And its English translation:

[…] If however, you can cast snakes coupled at a crossroads, (Fig. 4) alive and just mating, into a pot, and the following medicaments besides, you have a preventive against deadly disasters. Throw in thirty drachmas' weight of the marrow of a freshly killed stag and one-third of a chous of rose-oil, - essence which perfumers style 'prime' and 'medium' and 'well-ground' - and pour on an equal measure of raw, gleaming oil and one-quarter of

Figure 3. Theriaca and Alexipharmaca by Nicander, 11th cent., Constantinople, Provenance: Biblioteca Vaticana; Saint-Germain-des-Près, Paris, Bibliothèque nationale de France, MS Suppl. gr. 247, Facsimile Edition, photo 3.

Figure 4. Theriaca and Alexipharmaca by Nicander, 11th cent., Constantinople, Provenance: Biblioteca Vaticana; Saint-Germain-des-Près, Paris, Bibliothèque nationale de France, MS Suppl. gr. 247, Facsimile Edition, f.7r

wax. These you must quickly heat in a round, bellying pot until the fleshy portions are softened and come in pieces about the spine. Next take a shaped, well-made pestle and pound up these many ingredients in a mixture with the snakes; but cast aside the vertebrae, for in them a venom no less deadly is engendered. Then anoint all your limbs, be it for a journey or for a sleep or when you gird yourself after work at the threshing-floor in summer's drought […][23]

The other, Alexipharmaca, may also have been derived from Apollodorus. It consists of 630 hexameters concerning poisons and their antidotes. Both works are obscurantist, written in unimaginative, archaic language.[24] A sample of this poem also is presented:

"ἐν δ' Ἀκοναίοις δηλήειν ἀκόνιτον ἐνεβλάστησεν ὀρόγκοις.
τῷ καί που τιτάνοιο χερὸς βάρος ἔσσεται ἄρκος
πιμπλαμένης ὅτε νέκταρ ἐύτριβι κιρρὸν ἀφύσσῃς
μετρήδην - κοτύλη δὲ πέλοι καταμέστιος οἴνης -
σὺν δὲ καὶ ἁβροτόνοιο ταμὼν ἄπο καυλέα θάμνου
ἢ χλοεροῦ πρασίοιο τὸ δὴ μελίφυλλον ὑδεῦσι· καί
τε σὺ ποιήεντος ἀειθαλέος χαμελαίης βλάστην
πηγάνιόν τε πόροις, ἐν βάμματι σίμβλων σβεννὺς
αἰθαλόεντα μύδρον γενύεσσι πυράγρης, ἠὲ σι-
δηρήεσσαν ἄπο τρύγα τήν τε καμίνων ἔντοσθεν
χοάνοιο διχῇ πυρὸς ἤλασε λιγνύς· ἄλλοτε δὲ χρυ-
σοῖο νέον βάρος ἐν πυρὶ θάλψας ἠὲ καὶ ἀργυρόεν
θολερῷ ἐνὶ πώματι βάπτοις. πολλάκι δ' ἡμιδαὲς
χειρὸς βάρος αἴνυσο θρίων παῦρα χαμαιπίτυος,
τότ' ὀνίτιδος αὖον ὀρείης ἠὲ νέον ῥάδικα πο-
λυκνήμοιο κολούσας, τέτρασιν ἐν κυάθοισι χαδεῖν
μελιανθέος οἴνης· ἢ ἔτι μυελόεντα χαλικρότερον
ποτὸν ἴσχοις ὄρνιθος στρουθοῖο κατοικάδος εὖθ'
ὑπὸ χύτρῳ
γυῖα καταθρύπτῃσι βιαζομένη πυρὸς αὐγή·"[25]

[...] And the deadly aconite flourishes amid the Aconaean mountains. For one so poisoned gypsum to the weight of a handful will perhaps be a protection, if you draw thereto tawny wine in due measure with the gypsum reduced to fine powder - let it be a full cotyle of wine - and add stalks of wormwood, cutting them from the shrub, or of bright green horehound which they call Honey-leaf; administer also a shoot of the herbaceous, evergreen spurge-olive and rue, quenching in vinegar and honey a red-hot lump of metal between the jaws of the fire-tongs, or dross of iron which the flame of the fire has separated within the melting-pot in the furnace; or sometimes just after warming in the fire a lump of gold or silver you should plunge it in the turbid draught. Or again you should take leaves, half a handful's weight, of the ground pine; or a dry sprig of pot marjoram from the hills, or cut a fresh spray of field basil, and cover them in four cyathi of honey-sweet wine. Or you may take some broth, still meaty and undiluted, made from a domestic fowl […]"[26]

As Nicander's poems contain a bewildering number of plant names, wherever possible links have been provided to the relevant Wikipedia articles, in line with the translators' notes in their 'Index of Fauna, Flora etc". However, in many cases, the identification of the modern plant name is far from certain. As the translators say: *"The interpretations of Ancient Greek plant-names put forward by those who have given much time and thought to the study differ widely; many are tentative and uncertain, while some plants have far defied identification [...] and in Nicander the difficulties of identification, already formidable in themselves, are enhanced by the doubt whether the poet knew what he (or his authority) was talking about".*[27]

1st/2nd cent AD

Rufus of Ephesus

Rufus of Ephesus lived during the reign of Trajan. He was a prolific writer on many medical issues, mainly

anatomy and melancholia. His treatises were widely used in the following centuries, especially by Islamic authors. In contrast with the majority of eminent physicians of his time he didn't stay in Rome, spending his time in Alexandria and mainly in Ephesus. Servilius Democrates refers to a pharmacologist named Rufus, probably the one from Ephesus, as the writer of pharmacological recipes in verse. Although some botanical verses are tentatively attributed to him, their authorship remains uncertain. These verses were published in Venice in 1499 under the title "de viribus herbarum deo alicui consecratarum" and were included in subsequent publications such as the Aldine edition of Dioscorides in 1518, the second edition of Fabricius' "Bibliotheca Graeca" and in Leipzig in 1832, as noted by Gossen in p3.[28]

Furthermore, an anonymous poem known as the "Carmen de herbis", which is believed to possibly be the work of Rufus, is appended to the text by Dioscorides in Codex Vindobonensis mgr 1. This anonymous poem provides an overview of sixteen healing herbs (Carmen de viribus herbarum) and is punctuated by a full-page illustration of coral with a personification of a deity in folio 391v[29]. The verses confirmed to be Rufus's are the eight botanical ones preserved in Galen's "Mixtures and Powers of Simple Drugs" (xi. 796 K).

2nd cent. AD

Eudemus of Pergamum

Eudemus, a pupil of Themison the physician, was associated with the Methodic school of medicine and lived in Rome during the 1st century. He is said to have described symptoms of hydrophobia and authored a poem detailing remedies for bites from venomous creatures. This particular poem has survived because it was incorporated into Galen's second volume of "*De antidotis*". Eudemus achieved the esteemed position of court physician but met a tragic end; he was arrested, tortured, and executed due to his involvement in the conspiracy of Sejanus.

The poem begins as follows:

Ἴησιν μάθε τήνδε πρός ἑρπετά, ἣν Φιλομήτωρ
Νικήσαι, πείρα κέκρικεν Αντίοχος.
Μήου από ρίζης ολκήν διδραχμίαν ορύζας,
Σύν τώ δ ἑρπὔλλου κλώνας ισορρεπέας.
Σύν δ' οπόν εκ πάνακος στήσας ϊσον ηδέ τριφύλλου
Καρπόν, όσον δραχμής σταθμόν άγοντα δίδου,
Ανίσου, μαράθρου τε και άμμιος, ηδέ σέλινου
Εξ ενός, έν πληρών σπέρματος οξύβαφον.
Συν δ ορόβου λείου δύο οξύβαφ εμπασ αλεύρου,
Πάντα δ ομού Χίω νέκταρι συγκεράσας,
Κυκλοτερείς ανάπλασσε τροχούς, ισοτητι μεριζων,
Ἡμιδραχμοῖο ροπής, όφρ αν έκαστος έχη.
Χίω δ εγκεράσας τάδε μίγματα, πικρόν εχίδνης,
Ημίσεως δραχμήν, ιόν άποσκεδάσεις.
Τώ δέ ποτώ και δεινά φαλάγγια, καί σκολιοίο
Σκόρπιου εκφεύξη κέντρα φέροντ οδύνας.[30]

To highlight the challenges associated with translating poems from classical languages into English, I present two different English translations of the aforementioned poem, as graciously provided upon my request. The first one is an excellent liberal rendition by Professor Janusz Ostrowski of the Centrum Medyczne Kształcenia Podyplomowego in Poland, crafted in the poetic form:

"Learn about this snake-fighting brew, hark!
Crafted deftly by Antiochus Fhylomentor's mark.
Dig up the root of the viper's bane,
Two drachms in weight, its potency plain.
And likewise, take the creeping thyme's stems,
In equal measure, as potent as gems.
Measure out juice from oponaks just as weighty,
Add clover fruit (one drachm, I advise greatly).
Gather one oksybaph of seeds in a blend:
Anise, dill, cumin, and celery, they'll mend.
Two oksybaphs of fine-ground spelt flour go in,
Blend all with Chinese wine, a medicinal spin.
Then mold round pills with precision, do strive,
Each weighing a half-drachm to thrive.
Mixed with Chinese wine, this dose shall outshine,
The venom of serpents, a perilous sign.
Arachnids that scare, this potion shall fight,
And stings of scorpions, in the darkest of night".

The second version is a faithful rendition of the original, rendered grammatically accurate but without rhyming, by the professional translation company, Rhyme & Reason Language Services.

"Learn about this anti-snake medicine therefore,
Which Antiochus Philometor effectively created.
Dig out a root of spignel weighing two drachmae
And an equal number of thyme wet stems.
Measure juice from the opopanax of the same weight,
Give trefoil fruit (one drachma I advise)-
Collect one denari of seed at a time:
Anise, dill, cumin, and celery.
Add two denarii of fine vetch flour
And mix all this with Chian wine quite well
Then shape the round pellets so that
Each one has a weight of exactly half a drachma.
Mixed with Chian wine, this dose conquers
The bitter venom of a dangerous viper or snake.
Fear-inducing spiders will be defeated by this drink,
As will the painful stings of the crooked scorpion".

2nd/3rd cent.AD

a. Galen

Galen was the most renowned physician of antiquity, after Hippocrates. He authored numerous works on medicine and other subjects. This article does not aim to elaborate further on Galen's life and works, but only to comment on his opinion of versified medical recipes. He lauded these for their utility, particularly for ensuring the accuracy of the weights of medicaments and aiding memorisation.[31] When referencing the remedies of Damocrates, Galen commended his versified recipes because they "are more useful than prose recipes, not only for the sake of memory, but also for the precision in the proportions of the various ingredients". This preference is reiterated when he discusses Andromachus's recipes for theriakē and mithridatium; however, he favours Damocrates's versions for their exactitude. Galen's writings also include a recipe by Philo of Tarsus for colic. Furthermore, he found the poetic form beneficial as a concluding element in his pharmacological texts, ending five of his books with verse recipes by Damocrates: three in "Places 5", four in "Places 8", one in "Types 1", five in "Types 6", and four in the final book, "Types 7". This practice of concluding his pharmacological treatises with verse recipes mirrors the concept of a conclusion and softens the harshness of the medical content.[32] The latter comment by Totelin is reminiscent of a comment by Michael Psellus from the 11th century, which we will explore further in Part B of this article.

b. Serenus Sammonicus

Serenus, epitomising the literary figures of an era marked by a revival of archaic forms, stood as a distinguished successor to Marcus Cornelius Fronto and Aulus Gellius. His stature and role were deeply entwined with the era's fervent dedication to grammar and a mastery of ancient lore. It is widely believed that was put to death in AD 212 at a banquet hosted by Caracalla.[33] Serenus authored the "Liber medicinalis," composed in elegiac distichs, also known as "De medicina praecepta". This work, consisting of 1,115 elegiac hexameters, organised pharmaceutical knowledge methodically from head to heel—'a capite ad calcem'. A fragment of Medicina Praecepta concerning the treatment of gout reads:

XLII. Podagrae depellendae

Quaedam sunt rabidae medicamina digna podagrae,
Cui ter tricenas species Epidaurius ipse
Dixit inesse deus: requiem tamen indere morbo
Fas erit, et tristem saltem mulcere dolorem.
Ergo age et arreptum salicis frondemque librumque
Cum vino tere, sic contractos perline nervos.
Aut quum prima mali sese ostentabit origo,
Fervida non timidis tolera cauteria plantis:
Seminecisve hirci reserato pectore calces
Insere, sic dirae reprimes primordia pestis.
Aut si corruptus persederit altius humor,
Trita cupressus ibi Baccho jungetur acerbo,
Panibus et teneris: cohibebitque addita questus.
Parva sabucus item hircino collita sevo,
Triticeaeque acido manantes amne farinae,
Aut nitido ranae decoctum viscus olivo
Sive chelidoniae succus, sed mixtus aceto.
Sunt quibus apposita siccatur hirudine sanguis.
Non audita mihi sit fas, sed lecta referre: Hoc
quidam rabidus morbo per tempora messis
Vicino plantas frumenti pressit acervo
Evasitque gravem casu medicante dolorem.[34]

And the English translation

"There is no remedy that can completely cure podagra, a cruel disease of which Aesculapius lists ninety species; however, its ardour can be soothed and its pains made less acute. Some relief can be obtained by taking willow leaves and bark crushed in wine. As soon as the first attacks occur, you must have the courage to apply a burning iron to the soles of your feet. By plunging your feet into the throbbing entrails of a goat that has just been disembowelled, you will halt the progress of the incipient disease. But if the pain is deeper and more intimate, apply a poultice of cypress, vinegar and soft bread, and the pain will be suppressed. Henbane combined with goat's fat is also a good specific treatment. You can also use wheat flour mixed with vinegar, or frog intestines cooked in pure olive oil, or chelidonia juice mixed with vinegar. Some people apply leeches to themselves and are relieved by the release of blood. Allow me to report, not what I have heard, but what I have read: a man suffering from gout at harvest time suddenly felt relieved of his ailment when he happened to step on a sheaf of wheat".

Serenus' best-known recipe is undoubtedly the 'abracadabra' recipe, which includes the first known occurrence of that magical word. It recommends writing the word on a piece of parchment, which is then used as an amulet for the treatment of a particular type of fever. (Fig. 5)

Much more fatal [than other fevers] is that which is called 'hemitritaios'. In Greek words; this in our language. Nobody could express, I believe, and neither did parents wish for it. Write upon a piece of papyrus the word ABRACADABRA. And repeat it more times underneath, but take away the last letter. So that more and more individual elements will be missing from the figure, Those which you constantly remove, while you retain the others, Until a single letter remains at the end of a narrow cone. Tie this to the neck with a linen thread; remember that! (Quintus Serenus, Liber Medicinalis 51.1-9)

Serenus used inscribed parchment as a healing ingredient in at least one other recipe, for treating insomnia in people suffering from fevers:

"Not only does the most loathsome fever consume wretched patients,
It further deprives them of longed-for sleep,
Lest they should benefit of the heavenly gift of peaceful sleep.
Therefore inscribe a piece of parchment with random words,
Burn it, then drink the ashes in hot water". (Quintus Serenus, Liber Medicinalis, 54.1-5)[35]

Interestingly, this practice known as the "magic paper treatment" has persisted, notably near Greece, in the village of Koutsi in North Epirus (now part of southern Albania). This was documented by military doctor G. Kammas during his service with a Greek Army unit stationed there in 1913. According to Kammas, the local "healer", a Mr. Thomas, prescribed a peculiar remedy for patients suffering from renal colic. He advised them to light four pieces of paper, soaked in lard, and then cover their heads with a blanket and lean over the flames to inhale the fumes. In a similar vein, Mr. Thomas treated urine retention by attaching four pieces of paper, inscribed with magical words, to the four limbs of the afflicted. Remarkably, in both scenarios, recovery was assured![36]

Figure 5. One possible representation of the 'Abracadabra' amulet. Wikimedia Commons.

3rd cent. AD.

The Carmen graecum de herbis (Greek poem about herbs)

This treatise, authored anonymously by a Greek between the 2nd and 3rd centuries AD, comprises 215 lines of epic hexameters. It explores the healing properties of approximately fifteen different plants (1–6: chamaemelum; 7–23: rhamnus; 24–39: artemisia; 40–54: pentadactylus; 55–73: vervain; 74–91: dictamnus; 92–104: lelisphakos; 105–113: cyparissus; 114–127: centaury; 128–139: bouphthalmus; 140–172: peony; 173–178: polium; 179–91: moly; 192–211: sea-oak; 212–216: chrysanthemum). The first surviving lines read:

"Τοὺς δὲ πυρέσσοντας τὸ χαμαίμηλον θεραπεύει σὺν ῥοδίνῳ λεῖον τετριμμένον, ὠφέλιμον δέ τοῖς μετριάζουσιν τὸ φυτόν. φύεται δ' ἐπὶ θινῶν τὸ βραχὺ καὶ κάλλιστον, ὅ βαστάζουσιν ἰητροί ἀρχομένου θέρεος, μέγας Ἥλιος ἡνίχ' ὁδεύῃ ἕβδομον ἱππεύσας τετράζυγον ἅντυγα πώλων".

«Those suffering from fever chamomile heals, rubbed down smoothly with rose (oil?); this plant is also useful for those who do not feel too well. On sandy soil it grows, short and most beautifully, which healers pick at the beginning of summer, when the great Helius goes for the seventh time(?), having steered his four-yoked chariot of steeds»

Although it stands in the tradition of the didactic medical poems of the past, it heavily borrows from Homer. It is an evident descendant of the past didactic pharmacological verse tradition. Its rare characteristic is the inclusion between many "scientific" recipes of several allusions to magic. Indicatively, De herb. 7–13, praises the virtues of rhamnus:

"Ράμνος ἔχει πανάκεια<ν> ἐν οἴκοισιν παναρίστην φυομένη φραγμοῖσιν ἀκανθῆεν πετάλειον.ὤρου δ' ἐστὶ φυτόν. τὸ δὲ σύμφορόν ἐστι βροτοῖσιν βαστάζειν τότε ῥάμνον, ὅταν φθίνουσα Σελήνη 10δέρκηται πάντεσσι βροτοῖς κατὰ μακρὸν Ὄλυμπον. κρημναμένη δύναται γὰρ ἀποστρέψαι κακότητας φαρμακίδων τε κακῶν καὶ βάσκανα φῦλ' ἀνθρώπων".

"Rhamnus contains the very best panacea at home(?), growing a thorny petal among its shrubs.

It is a night (?) plant. It is advantageous for men to carry this root when the waning Selene looks down on all men from Olympus. Hanging it can ward off the evils of both evil witches and the malicious tribes of men"[37]

4th/5th c. AD

Marcellus Empiricus

Marcellus Empiricus, a political figure of the late fourth century, exemplified the provincial aristocracy during the transition from paganism to Christianity. He authored a comprehensive Latin treatise titled *De medicamentis liber*, which catalogues 350 different ingredients and over 2,000 recipes. The work concludes with a 78-line didactic poem in hexameters titled "Carmen de speciebus", which serves as an abstract or summary, referred to by Marcellus as a *sphragis*.[38] The poem begins in a grandiose manner, presenting its fictional sources:

'What Apollo taught his son, what Chiron taught Achilles, what Podalirius and Machaon once learned from their father [Asclepius] – he who once transformed into a snake and went up into the high temple of Palatine Rome; what the old man of Cos [Hippocrates] taught, and what Abdera taught him, what theory or method or simple experience determines: that book holds this, drawn from differing schools of thought"

It continues by instructing the patient in verses

9-18: "Here you will find, described by names and remedies, the ingredients and the corresponding weights and measures which you, being a wise man, will control unerringly. See to it that you are not misled, and that an inept treatment of a doctor does not turn the remedy which has been procured for healing, to harm. Thus, choose doctors endowed with exceptional judgment regarding the circumstances, the disease and the condition brought by the age, whether to provide a remedy for the ailments of the sick person with a herb or rather with an incantation: for an incantation bringing about miracles by means of mysterious words, is a reliable remedy for healing". Further on, he is more specific: […]

Add also (first either pound or grind with circular movements) the fresh stuff which the garden has or the dry stuff which the smoke-chamber has, garlic and thyme, herbs and healthy savoury, cabbage and radishes, and endives with their long fibres, and mint and mustard, coriander and cabbage of the first cutting, colewort and parsley, mallows and health-giving beet, rue and cress and bitter wormwood—mix it—and potent pennyroyal and also some mild cumin. And let the date from Judaea not be lacking, nor the prune from Damascus; and when you have pulverized this by grinding it with many circular movements, serve it well-cooked in broad shallow dishes or in great pots. But, cook it with a lid on, so that the brew does not become smoky and has a bad taste, which the sick person might immediately dislike".

The English translations are provided by Gilliers.[39] The translation in prose misses the poetic feeling of the Latin original. Try speaking aloud melodic and harmonious lines such as line 31: *Cadmia, chalciti, chalcantho, chalcecamino ('with calamine, rock alum, vitriol, molted copper');* or line 56: *galbana, sandaracam, samsucum, sporon, alumen ('galbanum sap, sandarac resin, marjoram, seeds, alum').*[40]

Discussion

The General Discussion and Conclusions will be published in the end of Part B of this article.

ΠΕΡΙΛΗΨΗ

Περί μερικών Ελληνικών και Λατινικών ιατρικών συνταγών με την μορφή ποιημάτων. Η θέση τους στον κόσμο. Μέρος Α

Αθανάσιος Διαμαντόπουλος, Νεφρολόγος/Αρχαιολόγος, MD, Ph.D., BSc

Σε αυτό το Μέρος Α του άρθρου μας, μελετάμε τις ιατρικές συνταγές σε στίχους στην ελληνική λογοτεχνία από την ελληνιστική έως τη ρωμαϊκή αυτοκρατορική εποχή. Αναπόφευκτα, αναφερόμαστε εν συντομία σε παρόμοιες συνταγές στην κλασική και την ύστερη λατινική γλώσσα, καθώς τα δύο είδη ήταν συνυφασμένα επί αιώνες. Απαιτείται λεπτομερέστερη μελέτη της λατινικής βιβλιογραφίας στον τομέα αυτό. Συζητούνται οι λόγοι που οδήγησαν σε αυτά τα διδακτικά ποιήματα καθώς και το μετρικό ύφος της σύνθεσής τους. Παρουσιάζονται αποσπάσματα των συνταγών (όλα σε αγγλική μετάφραση και αρκετά και στην πρωτότυπη γλώσσα), με χρονολογική σειρά και περιορισμένες βιογραφικές πληροφορίες για τους συγγραφείς τους. Αυτοί είναι οι εξής: Ο Όμηρος (ως ο απώτερος πρόγονος), ο Οβίδιος, ο Αγλαΐας του Βυζαντίου, ο Ανδρόμαχος ο Πρεσβύτερος, ο Φίλων της Ταρσού, ο Δαμοκράτης, ο Νίκανδρος, ο Ρούφος ο Εφέσιος, ο Εύδημος της Περγάμου, ο Γαληνός, ο Σερένιος Σαμμονικός, το Carmen graecum de herbis και ο Μάρκελλος Εμπειρίκος. Στο Μέρος Β θα συνεχίσουμε με το ίδιο είδος συνταγών κατά τη διάρκεια του Μέσου και του Ύστερου Βυζαντίου. Θα συμπεριληφθούν παραδείγματα από τα μεσαιωνικά λατινικά και από την ισλαμική ιατρική βιβλιογραφία, προκειμένου να αναδειχθεί το διεθνές πολιτισμικό περιβάλλον στο οποίο εντάσσονται αυτοί οι ελληνικοί στίχοι. Στο τέλος του Β΄ μέρους θα ακολουθήσει η γενική συζήτηση και συμπεράσματα.

Λέξεις Κλειδιά: *Διδακτική ποίηση, Αγλαΐας του Βυζαντίου, Φίλων Ταρσού, Δαμοκράτης, Μάκελλος ο Εμπειρικός, Ανδρόμαχος ο Πρεσβύτερος, Νίκανδρος*

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