

## DELtos

Vol 35, No 53 (2025)

# Deltos

DELtos JOURNAL FOR THE HISTORY OF MEDICINE  
Athens • June 2025 • Volume 35 • Issue 53 • ISSN: 2945-1205



On two Byzantine medical recipes in verse and the cultural climate of their composition. Fragments from Michael Psellus' Medical Iambic Poem and Nikephoros Blemmydes' canticle 'On Urines'

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doi: [10.12681/dj.42274](https://doi.org/10.12681/dj.42274)

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# DELtos

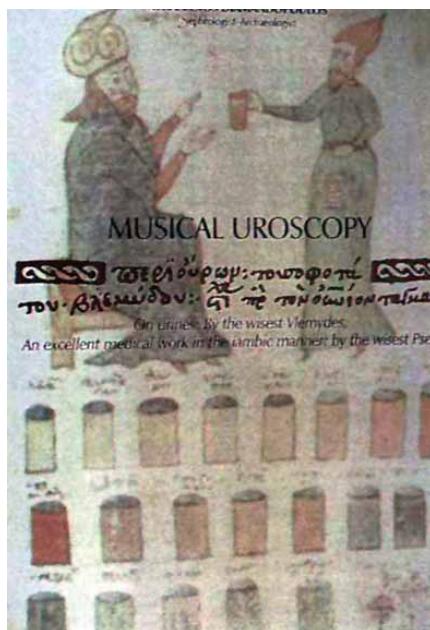
DELtos ΠΕΡΙΟΔΙΚΟ ΤΗΣ ΙΣΤΟΡΙΑΣ ΤΗΣ ΙΑΤΡΙΚΗΣ  
Athens • Ιούνιος 2025 • Τόμος 35 • Τεύχος 53 • ISSN: 2945-1205

### To cite this article:

Diamandopoulos, A. (2025). On two Byzantine medical recipes in verse and the cultural climate of their composition. Fragments from Michael Psellus' Medical Iambic Poem and Nikephoros Blemmydes' canticle 'On Urines'. *DELtos*, 35(53), 57–69. <https://doi.org/10.12681/dj.42274>

## On two Byzantine medical recipes in verse and the cultural climate of their composition. Fragments from Michael Psellus' Medical Iambic Poem and Nikephoros Blemmydes' canticle 'On Urines'

Athanasiос Diamandopoulos<sup>1</sup>



**Figure 1.** The cover page of the book “Musical Uroscopy” depicting the front page of Stephnus Prtispatharius’ treatise on urines. Miniature illustration, 15th cent., Ms. 3632, fol. 51r, University Library, Bologna.

### Abstract

In the previous issue of *Delos*,<sup>1</sup> we published Part A of the article entitled Greek Medical Recipes in Verse: Their Position in the World. That instalment examined the origins of versified medical recipes and presented examples from the Classical, Hellenistic and Roman periods. It concluded with the *De medicamentis liber*, a poem attributed to Marcellus Empiricus and dated to the 4th or 5th century AD.

In this Part B of the same article, we continue our exploration with a focus on similar recipes from the Middle and Late Byzantine periods. This section also includes examples from Medieval and Early Renaissance Latin and Islamic medical literature, thereby illustrating the intercultural context within which these Greek verses were situated. A general discussion and concluding remarks are provided at the end.

**Key Words:** *Parahymnography, Didactic poetry, Michael Psellus, Nikephoros Blemmydes*

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## Introduction

After the 5th century AD, Greek poetical pharmaceutical recipes become difficult to trace. There appears to have been a hiatus until the 11th century, a period during which the Byzantine upper classes experienced a revival of interest in Ancient Greek literature. Composing verse had become a widespread practice, encompassing various aspects of daily life and numerous scientific disciplines. Medicine was no exception to this trend.

The most well-known medical poem of this period was authored by Michael Psellus (Constantinople, 1018-1078), a monk, politician, physician and courtier. The work, entitled *Michael Psellus' An Excellent Medical Work in the Iambic Manner*,<sup>2</sup> reflects not a mere literary diversion but part of a broader corpus; Psellus is known to have composed at least twenty-six poems on diverse topics.<sup>3a,b,c</sup> He strongly maintained that rhythm and melody were essential for didactic purposes<sup>a</sup>, a view he elaborated in another of his works, *Eiς τὴν εἰσαγωγὴν τῶν Ψαλμῶν* (*Introduction to the Psalms*), written in decapentasyllabic verse.

«Ολως δ' ἡ βίβλος τῶν ψαλμῶν ἐστὶ ταμεῖον, παθῶν ἀπάντων φάρμακον, κοινὴ ψυχῶν ὑγεία, συμφόρημα τῶν ἀγαθῶν, ἀνθρώποις σωτηρία. πᾶσαν γὰρ νόσον ψυχικὴν ἔξαίρει καὶ διώκει, τὴν ἀρετὴν συνίστησι, παύει τὴν ἀμαρτίαν, δροσίζει, καύσωνα, μέριμναν ἔξοριζει, θλιβόμενον παρηγορεῖ, θυμούμενον πρᾶψει, πρόσφορον ἄκος δίδωσιν ἐκάστω τῶν ἀνθρώπων· καὶ τοῦτο δὲ μετὰ τινὸς ἐνθέου μελωδίας, μεθ' ἡδονῆς τε σώφρονος, μετ' εὐφροσύνης θείας, ἵνα τῷ λείω καὶ τερπνῷ θελγόμενοι τοῦ μέλους, τὸ τῶν ρημάτων ὄφελος ἔλκωμεν λεληθότως—ὅ τοις σοφοῖς τῶν ἰατρῶν ἔθος ποιεῖν πολλάκις ἥνικα γὰρ τὰ πόματα κιρνῶσι τοῖς ἀρρώστοις, μέλιτι περιχρίοντι τὰ τῶν κυλίκων ἄκρα, ὅπως ἐκ τῆς γλυκύτητος κλεπτόμενοι τὴν γεῦσιν, δέχωνται προσηγέστερον τὴν πόσιν τῶν φαρμάκων. οὕτως οὖν ψάλλοντες ἡμεῖς δοκοῦμεν μέλος ἄδειν· τὸ δ' ἀληθὲς παιδεύομεν τὰς ἔαντῶν καρδίας καὶ μνήμην ἀνεξάλειπτον ἔχομεν τῶν λογίων.

a Didacticism refers to a particular philosophy in art and literature which holds that various forms of artistic and literary expression should serve not only to entertain but also to instruct and convey knowledge. Didactic verses were often considered especially valuable when accompanied by music, which enhanced their mnemonic and pedagogical effectiveness.<sup>4</sup> A remote ancestor of such didactic poetry is Hesiod's *Works and Days*, composed circa 700 BC. Written in dactylic hexameter, the poem consists of 828 lines and exemplifies the union of instruction and poetic form.

έπει γὰρ πάντες ἀνθρώποι τοῖς μέλεσι κηλοῦνται, κρατεῖ δὲ ἐν τούτοις ἡδονὴ ρέυστοις τὴν φύσιν οὖσι, τὸ ράθυμον δ' ἀπόλλυσι τὴν μνήμην τῶν ρημάτων, ἔνεκεν τούτου τοῖς ψαλμοῖς τὸ μέλος εἰσηγέχθη, τὸ τῶν φαρμάκων ἀντηρὸν τῶν γραφικῶν καὶ θείων, μέλιτος δίκην ἀλλοιοῦν καὶ καταφαρμακεῦν, καὶ τῷ γλυκεῖ τὸ χρήσιμον εὐτέχνως παραρτύον—καὶ γὰρ τὸ χαριέστατον ἡδέως ἐπεισδύνον πάντως καὶ μονιμώτερον καρδίαις ἐφίξανε. ὅτι δ' οἰκείως ἔχομεν φύσει πρὸς μελωδίαν, τοῖς βούλομένοις ράδιον μαθεῖν ἐκ τῶν πραγμάτων. καὶ γὰρ κλαυθμηριζόμενα πολλὰ τῶν βρεφυλλίων μητέρες κατεκοίμησαν ὑπὸ τῆς μελωδίας.»<sup>5</sup>

## English Translation:

*King David, the God's ancestor, the Psalmist, The Glory of the Lawgivers and Prophets and Generals*

*In general, the book of psalms is a treasury: a remedy for every passion, a shared health of souls, a storehouse of every good thing, a salvation for humankind.*

*For it uproots and banishes every illness of the soul, establishes virtue, and brings sin to a halt. It brings coolness, dispels heat and anxiety, consoles the sorrowful, soothes the angry; it offers each person the remedy suited to their condition - and all this by means of a divine melody, with restrained delight and godly joy.*

*So that, beguiled by the smoothness and charm of the music, we unwittingly absorb the benefit of the words. This, after all, is a practice known to wise physicians:*

*when they administer medicine to their patients, they coat the rims of the cups with honey, so that, deceived by sweetness, they may more easily accept the bitterness of the drug.*

*In the same way, when we chant, it may seem we are simply singing melodies - yet in truth, we are training our hearts*

*and imprinting an indelible memory of the words.*

*For all human beings are enchanted by song, and pleasure holds sway over our fluid nature; while lethargy, by contrast, erases the memory of speech. This is why melody was joined to the psalms: to temper, like honey, the severity of sacred and divine writings, to transform them and render them medicinal,*

*and, through sweetness, to craftily convey what is beneficial.*

*Indeed, what enters gently and with pleasure takes root more deeply and more lastingly in the heart.*

*And that we are by nature attuned to melody is plain from experience:  
many a mother has lulled a crying infant to sleep with a song*

Although Psellus is not regarded as a standard hymnographer, he did compose a hymn in honour of Symeon the Translator, beginning with the verse “Having achieved a life full of God...”.<sup>6</sup> Within this cultural context, Psellus’ *Medical Poem* was neither paradoxical nor a rare whim. Rather, it was consistent with his aesthetic sensibilities, rhetorical and medical training, and the intellectual climate of the Middle Byzantine court.<sup>7</sup>

The second manuscript under consideration was composed in the 13th century by Nikephoros Blemmydes, during the period of the Empire of Nicaea—a successor state to the Byzantine Empire, which had fallen to the Fourth Crusade in 1204. The work is entitled *Στιχηρὰ εἰς τὰ κρίσεις τῶν ύελίων τῶν δεκατριῶν* (*Stichera on Distinguishing Between the Thirteen Kinds of Urine Vials*) [According to Colour]. It comprises a series of diagnostic, prognostic and therapeutic guidelines based on the colour and sediment of the patient’s urine.<sup>8</sup>

## Materials and Methods

In the current article we elaborate on:

### A. Treatments recommended by Psellus as part of a dietary regime, as found in his poems:

1. “περὶ λουτροῦ”<sup>9</sup>
2. “Περὶ Διαίτης”<sup>10</sup>
3. ‘Πόνημα ἰατρικόν ἀριστον δι’ ιάμβων”<sup>11</sup>

Additionally, we examine Nikephoros Blemmydes’ *Στιχηρὰ εἰς τὰ κρίσεις τῶν ύελίων τῶν δεκατριῶν*. Only those extracts from the canticle that pertain to treatment are presented.

As material, for the latter we have used the translated verses published in Bouras-Vallanatos’ article in *Deltos*, which also contains the original Greek texts. Extracts were further drawn from three of my own books,<sup>12-14</sup> in which I had previously presented the relevant sections of Psellus’ *Medical Poem* concerning only the examination of urine, in comparison with Avicenna’s medical poem. The entirety of Blemmydes’ canticle, including an extensive introduction and dis-

cussion, were also included. Sources for all additional content are provided in the References section.

### B. Islamic medical poems concerning therapeutics

### C. Comparable Latin texts

Sections B and C will be addressed briefly and selectively, with the aim of contextualising the Byzantine material within its broader intercultural environment.

## Results

The Greek originals and the English translations follow:

### A.

#### 1. “Περὶ λουτροῦ” Τοῦ λογιωτάτου Ψελλοῦ

##### Original (Polytonic Greek)

Πολλῶν τὸ λουτρὸν αἴτιον δωρημάτων.  
χυμῶν κατασπᾶ, φλέγματος λύει πάχος,  
χολῆς περιττὸν ἐκκενεῖ τῶν ἐγκάτων,  
τὰς θελξεπίκρους κνημονάς καταστέλλει.  
τὴν βλεπτικὴν αἴσθησιν ὀξύνει πλέον,  
ῶτων καθαίρει τὸν πεφραγμένον πόρον,  
μνήμην φυλάττει, τὴν δὲ λήθην ἐκφέρει,  
τρανοῖ δὲ τὸν νοῦν πρὸς νοήσεις εὐθέτον.  
Ολον τὸ σῶμα πρὸς κάθαρσιν λαμπρύνει,  
ψυχῆς τὸ κάλλος προξενεῖ πλέον λάμπειν,  
τοῖς εὐσεβῶς μάλιστα τούτῳ χρωμένοις  
δι’ ἀσθένειαν σαρκίον πολυνόσου.  
λούεσθε τοίνυν εὐσεβῶς, καθὼς θέμις,  
μὴ σπαταλικῶς (καὶ γὰρ ἐγγὺς ἡ κρίσις).

##### English translation

By the most learned Michael Psellus “On Bathing”  
Bathing is a fountain of many benefits:  
it draws off noxious humours, thins the stubborn phlegm,  
expels the surplus bile from the inward parts,  
and soothes those bittersweet itches of the skin.  
It sharpens sight still further,  
unclogs the blocked channels of the ears,  
guards the memory and banishes forgetfulness;  
it clarifies the mind, fitting it for keen conception.  
It brightens the whole body through its cleansing power  
and makes the beauty of the soul shine all the more  
especially in those who, weak and oft-ailing in flesh,  
turn to it with reverent care.  
Bathe, then, with moderation and due respect,  
not wastefully or in excess (for the Hour of Judgment  
is ever near).

## 2. «Περὶ Διαιτῆς» Τοῦ λογιωτάτου Ψελλοῦ Κωνσταντινουπόλεως

### Original (Polytonic Greek)

Ἄριστον ἀρίστησον ἐκτὸς τοῦ κόρου,  
καὶ δεῖπνον ἐδείπνητον ἐστενωμένον.  
πάντων λαχάνων, ὀσπρίων μικρὸν λάβε.  
πασῶν ὀπώρων πλησιονὴν ἀπότρεπον.  
κραμβοφαγῆσαι, βραχυφαγῆσαι θέμις,  
μίσει τὸν ὅκνον ὡς σατανᾶν, ὡς ὄφιν.  
δειλῆς τὸν ὅπνον οὐ καλὸν ποθεῖν ὅλως.  
παραρριπισμῶν προσβολὴν ἀπότρεπον.<sup>15</sup>

### English Translation

#### *Regimine, By the most learned Psellus of Constantinople*

*Make your lunch excellent, yet free of excess;  
keep supper spare and closely measured.  
Of every kind of vegetables and pulses take  
but a modest share;  
from all fruits steer clear of over-indulgence.  
To dine on cabbage, to dine in small amounts,  
is right.  
Abhor idleness as you would Satan, as you would  
a serpent.  
The late-day nap is no good - do not desire it at all.  
Drive away every sudden, heedless impulse*

## 3. Πόνημα ἰατρικὸν ἀριστον δι' ιάμβων". Extracts form his Medical Poem concerning the culinary and medicinal properties of several vegetables, and fruits

### Original (Polytonic Greek)

Αὕτη πέφυκε λαχάνων ἡ ποιότης.  
Τγρὰν ψυχρὰν τε τὴν θριδακίνην νόει,  
γεννῶσαν ἡδὺν ὅπνον, εὐτροφον φύσει.  
ἔχει δὲ ταύτας καὶ φύσις τῶν ἵντύβων  
τὰς ποιότητας, ἀλλ' ὅμως τεθραυσμένας.  
Η μαλάχη ψύχει μέν, ἀλλ' ἐλαττόνως,  
ὑγρὰν δὲ ποιεῖ τὸ πλεῖον τὴν γαστέρα,  
ὑπακτική τε τῆς περιττῆς γαστέρος.  
Ψύχει τὸ τεῦτλον, ἐκκενεῖ τὴν γαστέρα,  
δάκνει στόμαχον, ἥπαρ εὐρύνει πλέον.  
Κράμβη δίσεφθος δεσμὸς ἐστὶ γαστέρος,  
ἡ δ' αὖ μόνεφθος ἀλσὸν ἐμμεμιγμένη  
ὑπακτική πέφυκε τῶν ἐγκειμένων.  
Ἡ δ' ἀτράφαξις, προστίθησι καὶ τὸ βλῖτον,  
ὑγρὰ μέν ἄμφω καὶ λύοντα γαστέρα,  
ἀλλ' ἀτροφον τὸ σῶμα δεικνύντα πως.  
Ἄτρακτυλίς, σκόλυμος, ἡκανθωμένα

τροφίμα καὶ σύμμετρα γαστρὸς τῇ κράσει.  
ἡ κινάρα δὲ δυσστάμαχος τυγχάνει.

Οὐρητικὰ σέλινα, σμύρνιον, σίον.  
Κάρδαμον ἡδ' ὕκιμον, ἀλλὰ καὶ νάπι,  
ἄπαντα θερμὰ τυγχάνει καὶ δριμέα,  
δυσπέπτα, δυσστάμαχα, πλειστόχυμά τε.

Ἡ δ' ἀκαλύφη, καὶ κνίδη καλουμένη,  
λεπτή τις ἐστίν, ἐκκενεῖ τὴν γαστέρα.  
Τὸ δ' αὖ γε γιγγίδιον ἐμφύτως στυφὸν ἄριστον,  
εὔστομαχον εἰς ἀποτρόφους,  
εὔσιτον, εὔορεκτον, οὐ σάρκας τρέφον.  
Ἐκφρακτικὴ κάππαρις, ἡδίστη πλέον,  
δοκεῖ μιγεῖσα φλεγμάτων ἀναιρέτις.

Ὥρα δὲ καινὴν φύσεως ποικιλίαν:  
βλῖτοι, μαλάχαι, τεῦτλα καὶ θριδακῖναι  
ὑγρὰ μέν εἰσι τοῦ φυτοῦ τὴν ούσιαν,  
ξηρὸς δὲ τούτοις ἀσπάραγος τυγχάνει.  
Ἡ δ' ἀν ράφανίς, γογγύλη τε καὶ νάπι,  
τὸ κάρδαμον, πυρέθρον, ἡ κράμβη πλέον,  
τὸ μὲν φυτόν φέρουσιν ἐξηραμμένον, ἔχουσι  
δ' ἀσπάραγον ύγρὸν τὴν φύσιν.

Ἡ γογγύλη δὲ, βουνιᾶς κεκλημένη,  
τροφίμος, εἰ δίσεφθος·  
εἰ δὲ πολλάκις γεύσαι ταύτης,  
δυσστομαχήσεις πλέον.

Ὀρεκτικὴ πέφυκεν ἡ βολβοῦ φύσις,  
τὴν γαστέρα ρίπτουσα καὶ τονοῦσά πως,  
τροφίμος, εἰς ἔρωτας εὐφυεστέρα,  
γεννητικὴ τε πνευμάτων καὶ σπερμάτων.  
Πράσα τε καὶ σκόροδα, τὰ κρόμμινα τε πάντα,  
δριμύττει καὶ τέμνει καὶ λεπτύνει.  
Ἄποιον ὕδνον καὶ καταψῦχον πλέον.

οἱ δ' αὖ μύκητες φλεγματώδεις τὴν φύσιν.  
οἱ δ' ἀμανῖται τοῦτο πῶς ἐλαττόνως.

Τῶν ὀσπρίων δ' αὖ τὴν φακὴν ἀποτρέπουν.  
μελάγχολος πέφυκε, δεσμὸς γαστέρος.

Κοῦφοι κύαμοι καὶ φυσώδεις τὴν φύσιν.

Ο δ' ἐρέβινθος ρυπτικὸς τε τυγχάνει  
καὶ σπέρμα γεννᾶ καὶ λίθους διαθρύπτει.

Τὰ θέρμια δύσπεπτα.

Τὰ θέρμια ἡ πόα θερμὴ πέφυκε,  
προτρέπει τὴν γαστέρα.

Ο δ' ἀν φάσουλος καὶ τροφίμος τυγχάνει,  
κενωτικὸς τε τῶν περιττῶν ἐκτόπως.

Η φάσουλος καὶ λύει τὴν γαστέρα,

ψῦξιν τε γεννᾶ καὶ καθυγραίνει πλέον.

Πέπων κακοστόμαχος, ἥττονως τρέφων.

Ο σικυὸς δύσπεπτος, ύγρὸς τὴν φύσιν.

Σῦκον, σταφυλαῖ καὶ τρέφουσιν ἥρεμα,

ἥττον τε δυσστάμαχα, πλειστόχυμά τε.

Τῆς δὲ σταφυλῆς εὐχυμώτερον σῦκον,

νεφροὺς καθαίρει καὶ κενεῖ τὴν γαστέρα.  
Αἱ δὲ ισχάδες σύμπαντα πρὸς τούναντίον,  
ἀμοὺς χυμοὺς τίκτουσι, πληροῦσι φύσεως.  
τῶν δὲ σταφυλῶν ἡ σταφίς σοι βελτίων.  
Τὰ συκάμινα ψυχροποιὰ μετρίως,  
τίκτουσι δὲ ύγρότητα πολλὴν ἐν βάθει.  
Ἡ δὲ ἀν γε διττὴ τῆς κεράσου ποιότης  
διπλοὺς ὄμοιώς τοὺς χυμοὺς παρεισάγει.  
ἡ γὰρ γλυκεῖα τῆς ὀπώρας ποιότης  
βλάπτει στόμαχον, ἐκκενεῖ δὲ γαστέρα,  
ἡ δὲ στυφουσά τῷ στύφειν τὴν γαστέρα φθείρει,  
στόμαχον οὐχ ὑπεῖσιν οὐδὲ διλαῖς.  
Οἱ κωνικὸς στρόβιλος εὐχυμος φύσει.  
Μῆλον γλυκάζον καὶ τροφίμον τυγχάνει  
καὶ θερμὸν ἐστὶ μᾶλλον ἔξωπτημένον.  
Κυδώνιον δὲ φωστικὸν μὲν τυγχάνει,  
ἐφεκτικὸν δὲ ἐστὶ τῆς γαστρὸς πλέον.  
Ῥοιά ψύχει, μέσπιλα τὸ πλεῖον στύφει.  
Ῥοιά ψύχει, μέσπιλα τονοῦ στόμαχον  
έστεγνωμένος, ἐφεκτικὸς δέ ἐστι γαστρὸς  
έκτόπως.

### English Translation

*This is the quality of vegetables.*  
Lettuce is moist and cold; it brings sweet sleep and is naturally nourishing.  
Endive shares these qualities, though weaker.  
Mallow also cools, though more mildly; it moistens the stomach and acts as a laxative.  
Beetroot cools and empties the stomach, but can irritate it and affects the liver more strongly.  
Cabbage, if boiled twice, causes constipation; if boiled once with salt, it acts as a purgative.  
Atraphaxis and amaranth blitum are moist and laxative,  
but seem not to nourish the body sufficiently.  
Atractylis and scolymus are mildly thorny plants, suitable as food and well-matched to the stomach's balanced temperament.  
The artichoke, however, is hard to digest.  
Celery, smyrnium, and water-parsnip are diuretics.  
Cardamon, basil, and lampsane are hot and pungent, indigestible, heavy on the stomach, and produce abundant humours.  
Akalyphe, also known as nettle, is light and purgative.  
Wild carrot is by nature very astringent, suited to dieting, easy on the stomach, appetising, but does not add flesh.  
Caper is astringent and very pleasant; when mixed in, it helps expel phlegm.

*Notice nature's intriguing variety:*  
Amaranth blitum, mallow, beetroot, and lettuce are all moist in substance, yet their shoots are dry.  
Radish, turnip, lampsane, cardamom, feverfew, and cabbage may appear dry in form, yet they possess moist shoots.  
Corn rocket, also called bunias, is nourishing but constipating; if eaten frequently, it upsets digestion.  
Bulbs are naturally appetising; they stimulate and invigorate the stomach, they are mildly nourishing, stir erotic desire, and promote libido and semen.  
Leeks, garlic, and onions are all pungent; they irritate, cut, dissolve, and thin.  
The common truffle is tasteless and cooling; fungi in general are phlegmatic in nature, though amanitae are somewhat less so.  
Of legumes, avoid the lentil; it causes melancholy and binds the bowels.  
Broad beans are light but gassy.  
The chickpea is purgative, stimulates semen, and breaks up kidney stones.  
Lupins are hard to digest. The grass lupin by its nature is hot and stimulates the gut.  
Common beans are nourishing and purge excess matter from the body.  
They also loosen the stomach, induce cooling, and hydrate the body.  
Melon is bad for the stomach and less nourishing.  
Cucumber is indigestible and moist by nature.  
Figs and grapes are gently nourishing, less burdensome on the stomach and rich in juices.  
The fig is juicier than the grape, purges the kidneys, and clears the bowels.  
Dried figs do quite the opposite: they produce dense humours and burden the body.  
Of the grapes, the raisin is better for you.  
Sycamore figs cool moderately and produce abundant internal in depth moisture.  
Cherry, having a dual nature, introduces both types of juices:  
its sweetness harms the stomach but cleanses the bowels,  
while its astringent nature harms the stomach but does not affect the belly at all.  
The pine cone is juicy by nature.  
The apple is sweet, nourishing, and becomes warmer when baked.  
The quince is fortifying and helps restrain the functions of the stomach.

Pomegranate cools; medlars are mostly astringent. Pomegranate cools again; medlars tone the stomach when dry and, in their peculiar way, hinder the digestive process.

### B. Nikeforos Blemmydes' or Maximus Planoudes' canticle

#### Ode 1. Tone 2. His overwhelming might once laid low in the deep all Pharaoh's host

[...] The white is the outcome of frigidity and kidney pain. The sufferer should be cured by the use of clysters; the ones made of fennel root and savoury are the most effective. Instead of applying spikenard, you can anoint [the patient] with this nice chamomile oil.

If there is no nosebleed, make a julep produced from naked barley. Strain the juice of boiled jujubes and sandalwood, add sugar and boil again, and go and give it to the sick

#### Ode 3. On the rock of the faith.

[...] Make a poultice with egg white and fleawort together with barley flour; apply this on the patient's liver; dissolve cucumber seeds in sugar and give it to the sufferer to drink.

Let [the patient] drink barley water when thirsty together with sour apples and vine tendrils; let [the patient] receive a cold clyster made of barley flour and a mixture of violet with sugar; if you have drosaton [i.e. rose syrup], give it to [the patient]; it is very good.

#### Ode 4. From a Virgin you came.

[...] Prepare a poultice similar to the one above, give it to the man and let him drink something sweeter; then, he can be cured by means of a clyster with absolutely no salt in it.

The fifth one is the most flame-coloured like blood, as we said; for, when the two elements are mixed together, i.e. blood and yellow bile, they cloud the entire brain.

#### Ode 5. The enlightenment of those in darkness.

[...] So take only half a glass of vinegar and the juice of a large cucumber, together with comfrey, amaranth, and the juice of colocynth and add enough rose water to fill a glass.

Mix three egg whites with all these, then get five handkerchiefs, pulverize and squeeze them lightly, and in this way apply well-soaked plasters to the liver. Administer this three times a day, in the morning,

afternoon and evening; give the patient, who has fasted since morning, [pulp of] tamarind fruit, safflower, and sugar to drink.

First, sprinkle him with rose water and then give him lettuce to eat as well; give the patient endive to eat and together with this [i.e. endive] give him sugar to eat, and – God willing – he will be cured.

#### Ode 6. Surrounded by a depth of offences.

#### Ode 7. The godless order of a lawless tyrant

[...] So mix the seed of lettuce, chamomile and basil seed together with barley flour and stir in beetroot juice and apply to the liver.

Apply this as a form of plaster on the forehead of the patient as well, since this will treat the patient and grant him his health

Boiling together raisins and jujubes, make a julep and give it to the sufferer; and make another julep with celery roots, lupine and chicory, to which you should add the roots of the maidenhair.

To this add one litre of sugar and give it every other day; the first day you should give the first one and then the second and so on; and then apply the juice of wild cucumber and flour of bitter vetch as a plaster.

#### Ode 8. The God who came down into the furnace.

[...] So apply ointments and warm plasters to the stomach; having added to them mastic gum and ladanum anoint the organs, i.e. the liver and the stomach, with oil made of rue and chamomile.

Take ginger root, galangal, clove, cumin, caraway, long pepper, spikenard, anise, pellitory, sweet flag, seeds of celery and dill seeds, and nutmeg.

Add lovage to these and nut grass and pulverise in a bowl and sieve well; add three litres of sugar together with two cups of rose water.

And put these in an empty pot and boil them with a glass of honey, and once they have thickened and blended by you, apply this as a plaster to the patient's stomach and the liver the morning and evening.

Urge him to take frequent baths and do not mix the wine with water; and if the patient drinks that, he will be freed from the disease that attacked him.

#### Ode 9. The Son of the Father without beginning.

[...] Roast the head of a sheep with its wool still on with nothing but salt and administer the broth as an enema; let him drink cardamom seed, galangal, and nut grass; and then venesect the leg of the sufferer immediately.

*The eleventh is cloudy having sediment on the bottom [of the vial] which came from the bladder, which contains urine; and the patient has pressing dysuria due to stone or sand and he suffers. Let him quickly drink castoreum and oregano, and let him eat pounded olive pits, octopus, vine tendrils, spikenard, galangal, seed of the chaste tree, cinnamon, and maidenhair.*

### C. Islamic Tradition

The 'Maysari's Encyclopaedia' is the title of a medical compendium composed in Persian verse by Hakim Maysari, a 10th-century Iranian physician. This rhymed classical text, written during the Islamic period, focuses on pharmacy and the treatment of diseases.<sup>16</sup> Another noteworthy example is Mohammed Ibn Takran al-Farabi (870-950 AD), who also employed poetry as a didactic tool for medical instruction. Supporting this association is the depiction of his signature on an Arabian postage stamp, stylised in the form of an Arabic musical instrument.<sup>17</sup>

Psellus' *Medical Poem* bears a marked resemblance to Avicenna's *Poem on Medicine* (*al-rūzah fi al-ṭibb*), which was composed in the 11th century and translated into Latin in the 12th century by Gerard of Cremona. Avicenna's work, written in the *rajaz* metre - a poetic form in Arabic analogous to the iambic metre employed by Psellus - was intentionally crafted in simple language for didactic purposes. In the prose preface to his *Poem on Medicine*, Avicenna provides a cultural rationale for composing medical treatises in verse within the Islamic scholarly tradition. The poem was later rendered into English prose by H. C. Krueger.<sup>18</sup>

An example of its therapeutic prescriptions is presented below:

#### **On purgatives and first about those which evacuate yellow bile**

Scammony (III-63) strongly discharges yellow bile; the dose is a third of a drachm; it has a great action on the humors; health is improved by mixing quince (III-64) in it to avoid its harmfulness to the stomach and liver; aloes is administered in the dose of a dinar (III-65) and, then, if necessary, doubling it with drugs such as bdellium (III-66) and gum tragacanth (III-67); yellow myrobalan (III-68) is taken in the dose of an ounce and, likewise, violet (III-69) and also cassia pith (III-70), tamarind (III-71), but not to excess.

As is well known, Ibn Sīnā (Avicenna) composed nine didactic poems on medicine, the majority of which remain unedited and have yet to receive thorough scholarly attention.<sup>19</sup>

Didactic poetry emerged in al-Andalus as early as the first half of the 9th century, within an intellectual milieu heavily influenced by the literary and cultural paradigms of Baghdad. Medical poems and their accompanying commentaries were produced on both sides of the Straits of Gibraltar, accounting for the notable proliferation of versified texts and glosses found in Nasrid Granada and the Merinid Maghrib, as well as for the wide dissemination of Ibn Sīnā's medical poem.<sup>20</sup> In the 12th century, Ibn Tufail authored an extensive medical treatise in verse, composed of 7,700 lines of clear and accessible *rajaz* metre. This work is preserved in the Al-Qarawiyyin Library in the city of Fez. Within it, he systematically addressed the diagnosis of diseases, outlined their causes, and subsequently discussed the corresponding therapeutic measures.<sup>21</sup>

### D. Latin tradition

Very similar texts were composed in the Latin West. Among the most renowned is the *Regimen Sanitatis Salernitanum*, presumably written in the 12th or 13th century, which gained widespread popularity as a didactic poem offering medical and dietary guidance. Another notable example is *Carmina de Judiciis*, a poetic treatise on uroscopy by Aegidius Corboliensis (Gilles de Corbeil), also dating from the 12th or 13th century and composed in Latin hexameters. Equally influential was a Latin verse herbal attributed to an eleventh-century writer living in France, commonly identified as Odo de Meung, though known pseudonymously as *Macer Flordus*. Portions of an English verse herbal and elements of a fourth prose text are also derived from versions of the *Macer* herbal. These examples attest to the continued circulation of Latin medical verse throughout the later Middle Ages, alongside the emergence of new translations—both in verse and prose—into the vernacular. Of the aforementioned texts, John Lydgate's *The Dietary* (15th century), which draws in part on the widely copied *Regimen Sanitatis Salernitanum*, survives in the greatest number of manuscript copies. The following headache remedy is excerpted from a substantial, late fifteenth-century remedy book, which features an intermingling of verse and prose prescriptions:

### Old English

A medycyn here I have in mynde.  
For hedde werke to telle as I fynde.  
To take ayeselle and puliolle ryalle.  
And camamylle and seethe hit with alle.  
that iouce anoynte thy nassethrellis welle.  
And make a plaster of that othere deele.

And doo hit in a goode grete clowte.  
 And wynd the hedde therewithe abowte.  
 So sone as hit is layde thereon.  
 Alle the hedde werke awaye schalle gon.

## Modern English

*I have a remedy in mind here, one I have found for headache:  
 take vinegar, pennyroyal, and chamomile, and boil them all together.  
 With the strained liquid, anoint your nostrils thoroughly;  
 from the remaining mash make a poultice.  
 Place the poultice in a clean, sturdy cloth and bind it firmly around the head.  
 As soon as it is set in place,  
 all the head-pain will swiftly depart.<sup>22</sup>*

In the Royal Library of Stockholm is preserved manuscript X.90 (also known as Kungliga Biblioteket, handsktift X.90 or 10.90), an early fifteenth-century manuscript renowned for its Middle English medical texts. It contains a valuable collection of 140 versified recipes. An example for the treatment of dropsy is provided below:

*For þe cold[e] dropsye. [380]*

## Alia medicina

*Anoper medycyne I fynde wrete alsoþat to þe cold dropsye is good to doo:  
 Alisawndir, betonye and fenkele do take, [419 betanye Hs.]  
 With aneyce [a] ȝewene porcyoun late make [420] [P. 45] [420 anence Hs.]  
 And in a lynen cloth these gresys be take, [385]  
 It must be sothyn in good olde ale;  
 And late hym drynkyn dayes sewene Euerilke a day  
 a porc[i]oun ȝewene.<sup>23</sup>*

In a parchment and paper manuscript copy of the *Livre des simples médecines*, i.e. the French adaptation of the *Circa instans* attributed to *Platearius*, there were recipes for Charles the Bold and Jean de Bourbon, abbot of Cluny, and the verse entitled *Virtutes Agnus Dei*, written and illustrated in Northern France.<sup>24</sup>

In 11.f. 298r-v: A verse recipe against an epidemic (the plague?) for Herzog Karl dem Kühnen [i.e. Charles the Bold] (1433-1477; r. from 1467), followed by prose commentary, in French. f. 305r: *Virtutes*

*Agnus Dei*, verse (11 lines)<sup>a</sup>. *Agnus Dei* means “The Lamb of God,” The text reads: (Guillaume Dufay (c1400 - 1474), “*Balsamus et munda cera*”, 1431)

## The original Latin

*Proprietas agni dei / Barsamus [for Balsamus] et cera munda cum crismatis vnda / Conficiunt agnum quem do tibi munere magnum / F[on]te velud natum, per mistica sanctificatum / Fulgura de sursum depellit et omne malignum / Pregnant servatur sine ve partus liberatur / Portatus munde sanat a fluctibus vnde / Peccatum frangit ut Christi sanguis et vngit / Dona confer dignis virtutes destruit ignis / Morte repentina servat Sathanque ruyna / Si quis adorat eum retinebit ab hoste triumphum / Agnus dei miserere mei qui crimina tollis / Amen.*

## English translation

*Balsam and clear wax,/Water with consecrated oil,/ These make the [model of a] lamb<sup>1</sup> which I give to you/ Great as a gift/Born as if from the source,/Sanctified through holy rites;/It deflects thunderbolts from above<sup>2</sup> and every ill;/The mother giving birth is protected,/ She emerges from the birth without pain;/The baby she bears is protected by waves of clear water;/[The lamb] shatters and strangles sin like the blood of Christ, /It brings gifts to those worthy of them, and destroys the power of fire /It protects from sudden death and Satan's destruction./Alleluia.\**

The verse describes the virtues of balsam, a spice imported from the East (mostly Egypt) and used as a balm both for healing and for the administration of religious sacraments.

Translation © by David Wyatt, reprinted with permission from the LiederNet Archive, in: [www.lieder.net](http://www.lieder.net) › lieder › get\_textBalsam and clear wax

One example in the Irish tongue (15th-16th cent) is found in a stanza from a poetic remedy for headache:

<sup>a</sup> The *Agnus Dei* was represented by a wax disk impressed with the image of a sheep. During a sanctification ritual the Pope approaches the *Agnus Dei*, which are placed in baskets. [...] the most senior Cardinal ministering the ampoule of Balsam, which the Sacrist hands to the Cardinal, the Supreme Pontiff pours the Balsam from the ampoule into the Water, in the form of a cross.<sup>25</sup> There is similarity with the Lemnian Earth, a cure all medicament from the 1st cent BC till the 20th cent AD. “It comes from a cave-like hollow on the island Lemnos. It is dug out there and mixed with goat's blood, the people form it to pills and seal those with a seal with a goat on it, called 'goat's seal'.<sup>26</sup> Galen was more specific about the preparation of the seal by the priestess “[...] She now dries the fatty mud until it reaches the consistency of soft wax; of this she takes small portions and imprints upon them the seal of Artemis[...]” This similarity has not been reported before.

*Lūait uinnsend a ngemrid garg  
odrad inniga imard  
do mēt na losa – cōir cain –  
īcaith gach aon rē naomaid. (RIA 445 (24 B 3)  
p.44, 27–28)*

### The English translation

*Ashes of an ash tree in harsh winter  
very tall bugloss,  
an equal measure of the herbs – proper and fine –  
It cures everyone within nine days. (translated by  
Barret)<sup>27</sup>*

### Discussion

#### In Byzantium

The *Πόνημα ιατρικόν* by Michael Psellus is a didactic poem on medicine. In a brief passage, introduced between verses 531 and 537, the author states that his aim is not to encompass the entirety of medical knowledge, but rather to awaken an interest in the subject among his learned peers through the charm of verse. Psellus' selection of medicinal plants in his versified recipes largely follows those found in Dioscorides' *Materia Medica*, and, notably, in the same sequence - a feature not previously observed. Furthermore, the names of pepper and sugar - both relatively late introductions - appear four and eight times respectively. This repetition is indicative of the growing pluralism in the availability of *materia medica* during the Late Byzantine period, in which Greek and Byzantine traditions were increasingly interwoven with Arabic medical knowledge, particularly in the domains of diagnostics and pharmacology.<sup>28</sup>

As noted in the poem's inscription, it was composed in the iambic manner. However, this is only partially accurate. Iambic metre traditionally refers to a poetic line composed of iambs - a metrical foot consisting of an unstressed syllable followed by a stressed one. Over time, however, the metrical precision of classical prosody diminished in importance, leading to the collapse of distinctions between long and short syllables. As a result, what was formerly iambic trimeter gave way to the Byzantine twelve-syllable line. These verses, therefore, are essentially composed in the Byzantine twelve-syllable metre, although they retained the classical designation *iambos*.<sup>29a</sup>

a This is yet another example of the ambivalent relationship the Byzantines maintained with Ancient Greece. They refused to acknowledge its demise or to lay it to rest. Despite persistent claims regarding Christian hostility towards the ideals of classical beauty, the Byzantines preserved the vestiges of Antiquity, striving - through poetry, sophistry, and scholarly treatises- to keep its legacy close to them.

This form is based partly on classical prosody and partly on tonal accent. It typically consists of twelve syllables, in which the 3rd, 7th, and 11th syllables are always short; the 2nd, 4th, 6th, 8th, and 10th are long; and the 1st, 5th, 9th, and 12th may be either long or short. A distinguishing feature of the iambic twelve-syllable is the paroxyssmal cadence, whereby the penultimate syllable of each line bears the principal stress.<sup>30,31</sup>

Psellus elaborated on this metre - then popular at court - and composed a short poem to illustrate the iambic form with an example:

#### Original (Polytonic Greek)

*Τον σοφωτάτον Ψελλού στίχοι όμοιοι περι ιαμβικού  
μέτρου (De metro iambic) p. 236*

*“[...] Έστωσαν ούν πυρρίχιος μεν «λόγος»,  
σπονδείν «Ἄτλας» εκ μακρών λόγων δύο  
«Λάχης» δ' ίαμβος καὶ «λέβης» αὐ καὶ «Θέων»  
Ιδού το πάν είληφας εν βραχύ μέτρῳ<sup>b</sup>*

#### English Translation

*The wisest Psellus' identical verses about the iambic  
metre (De metro iambic) p. 236*

*“[...] They stand for pyrrhios “word” for spondee “Atlas” consisted from two long syllables “Lachis” on the other hand iamb and “cauldron” and again “Theon”*

Michael Psellus glorified the poetical mode of medical treatises writing: [...] and uroscopy frequently suffices to show the future as the Pythian tripod.<sup>32</sup>

Uroscopy was thus regarded as being on a par with the prophecies of the Delphic Pythia, who delivered her oracles while seated upon her tripod. In poetic discourse, this figure of the Pythia is frequently invoked, as is, in similar contexts, the practice of uroscopy. (Figures 2 and 3). It was at Delphi that Plutarch staged a comparable scene: an engaging confrontation between the esteemed, versified oracles of the Pythian past and the prose oracles characteristic of his own time, reflecting a more prosaic reality.<sup>33</sup>

Another widely used poetic metre was the *decapentasyllable* (fifteen-syllable line), also known as *political verse*. This form flourished from the ninth or tenth century through to the nineteenth and twentieth centuries, and it remains in use today, chiefly in the context of traditional folk songs. The term *political*

b Red letters denote a short syllable, the underlined letters a long one.

originally signified *civil* or *civic*, and at the time denoted something pertaining to everyday people.<sup>1</sup> The term appears as early as the eleventh century, though it was likely in circulation earlier. Psellus was well acquainted with political verse and employed it extensively. A short admonitory poem addressed to Emperor Constantine IX Monomachos bears the title: *Στίχοι Πολιτικοὶ πρὸς τὸν βασιλέα κύρον Κωνσταντίνον τὸν Μονομάχον περὶ τῆς γραμματικῆς* (*Political Verses to Emperor Kyr Constantine Monomachos on Grammar*).<sup>34</sup>

Over time, the *politicoi decapentasyllable* came to be widely accepted, while the archaic iambic dodecasyllable gradually declined. Thus, Blemmydes' canticle *On Urines* is composed in political verse, although it does not consistently conform to the fifteen-syllable structure - a characteristic feature of Byzantine verse, which did not always strictly adhere to metrical rules. In Byzantium, it was music - and poetry- that were employed to enhance the texts, whereas in Western Europe the reverse was generally the case.<sup>35</sup> This canticle serves as a typical example of a canon composed of nine odes, each consisting of three to six canticles, following linear hymns. Preceding each ode, the corresponding ecclesiastical canticle is cited, indicating the manner in which the specific ode should be chanted.

The first two modern performances of the poems by both Blemmydes and Psellus were organised by the author of this article. The *Canon on Urines* was first chanted by the monks of the Holy Transfiguration Monastery in Nafpaktos, Greece, in 1998. It was subsequently performed in the form of an oratorio - together with

excerpts from Michael Psellus's *On Medicine* - by the Polyphonic Choir of Patras, with Andreas Skarvelos as soloist, in Delphi on 15 February 2001.<sup>36</sup> A third performance, intended for an international audience, was organised independently of our contribution by Bouras-Valianatos and Skrekas in 2014.<sup>37</sup>

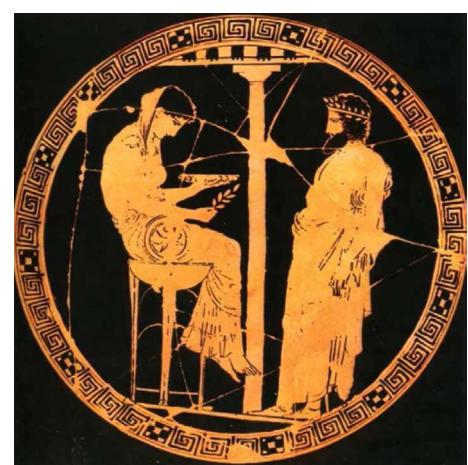
In Islam, too, there existed a close relationship between medicine and music.<sup>38</sup> This relationship was twofold. On the one hand, music was employed for therapeutic purposes, particularly in the treatment of psychological illnesses; on the other, a theoretical discourse developed concerning the relative value of music and poetry in relation to the study of the sciences. In most manuscripts, the poem of the treatise *On Urines*, is accompanied by a prose treatise on uroscopy. Notably also, Latin manuscripts containing metrical works on uroscopy are likewise accompanied by prose texts on urine. As becomes evident from the above, the metrical oration functioned in the past in a manner akin to what we would now describe as the *abstract* of a scientific survey or treatise - typically distinguished by a different typeface from the main body of the text. Generally, in the Latin West medical poetic recipes were in abundance in the Late Middle Ages and the Early Renaissance. Initially written in New Latin and then hesitantly in the local tongues

## Conclusions

The medical poems of Psellus and Blemmydes are by no means unique. Poetic recipes circulated widely during their respective eras, both in the East



**Figure 2.** The lower part of Nicoalaos Myrepsos' Dynameron frontpiece. The sitting doctor examining the urine in the matula while the invalid parent anxiously awaits his verdict. *De Compositione medicamentorum.* (13th cent.?), Bibliothèque Nationale, Paris, France



**Figure 3.** Themis, prophetic goddess of Delphi, prophesies by looking at the basin with the water of Castalia. She sits on the Pythian tripod, while in front of her Aegeus anxiously awaits the oracle. Interior of a red-figure calyx, 5th c. B.C. Berlin, State Museums

and the West. Blemmydes' incorporation of lyrics into *stichera* was innovative, although this practice had already found limited application in other scientific disciplines from the twelfth century onwards. Psellus did not compose pharmaceutical drug recipes in verse; however, in his three poems, with a fine aristocratic tone, offers guidance on diet and bathing, which may be regarded as equivalent to therapeutic regimens. These belong to a long-standing tradition of advice aimed at preserving or restoring health. Such writings are the Greek descendants of Hippocrates' *Regimen* and the Latin successors of the later *Regimen Sanitatis*. Their Islamic counterparts derive primarily from Avicenna's *Poem on Medicine*, although mutual influences are evident.

But did such poems offer genuine therapeutic value? A common methodological error lies in evaluating the medicine of that period through the lens of modern biomedical standards. Every cultural achievement must be assessed in relation to others of its own kind. From the evidence presented thus far, it becomes clear that neither the Latin West nor the Arabic East possessed superiority in therapeutic knowledge over that which emerged from Byzantium. On the contrary, the Byzantine contribution appears, at least for substantial periods, to have held precedence.

A second general observation is that major intellectual figures such as Psellus and Blemmydes would not have endorsed or reproduced views on such critical matters as human health without some degree of practical validation. A more detailed analysis of these texts from microbiological, nephrological, and pharmacological perspectives is warranted. We have undertaken such an approach.<sup>39,40</sup> A detailed supplement concerning the therapeutic properties of all the plants mentioned in *Deltos 2* and *Deltos 3* is currently in preparation for publication.<sup>41</sup>

### Acknowledgements

We extend our sincere thanks to Emily Diamandopoulou, MSc in Translation Studies and Founder of Rhyme & Reason Language Services ([www.reason.gr](http://www.reason.gr)), for translating all the Greek and Latin poems included in this article. As no standard English translation of the poems by Psellus could be located, she provided a precise prose rendition. Rendering the original Medieval Byzantine Greek verses into English verse proved to be exceedingly challenging. Accordingly, it was decided that a prose translation would suffice for the purposes of this publication. We also thank Professor Petros Bouras-Vallianatos for thoroughly reading the draft and making helpful comments.

## ΠΕΡΙΛΗΨΗ

**Δύο Βυζαντινές ιατρικές συνταγές σε στίχους και το πολιτιστικό κλίμα για την σύνθεσή τους. Αποσπάσματα από το «Ιατρικό Ποίημα δι'ιαμβων» του Μιχαήλ Ψελλού και του κανόνος του Νικηφόρου Βλεμμυδή**

Αθανάσιος Διαμαντόπουλος

Στο προηγούμενο τεύχος του Δέλτου δημοσιεύσαμε το Μέρος Α' του άρθρου «Ελληνικές ιατρικές συνταγές σε στίχο». Η θέση τους στον κόσμο». Σε αυτό, συζητήθηκε η προέλευση των έμμετρων ιατρικών συνταγών και παρουσιάστηκαν παραδείγματα από την κλασική, ελληνιστική και ρωμαϊκή περίοδο. Τελείωσε με το ποίημα του 4ου/5ου αιώνα μ.Χ. *De medicamentis liber* του Μάρκελλου Εμπειρικού Στο Β' μέρος του ίδιου άρθρου, συνεχίζουμε να διερευνούμε παρόμοιες συνταγές από τη Μέση και Ύστερη Βυζαντινή περίοδο. Αυτή η ενότητα θα περιλαμβάνει επίσης παραδείγματα από τη μεσαιωνική λατινική και ισλαμική ιατρική λογοτεχνία, που απεικονίζουν το διαπολιτισμικό πλαίσιο στο οποίο βρίσκονταν αυτοί οι ελληνικοί στίχοι. Μια γενική συζήτηση και συμπεράσματα θα δοθούν στο τέλος.

**Λέξεις Κλειδιά:** Παραύμνογραφία, Διδακτική ποίηση, Μιχαήλ Ψελλός, Νικηφόρος Βλεμμύδης

## REFERENCES

1. Diamandopoulos A. On some ancient Greek and Latin medical recipes in verse. Their position in the world. Part A. DELTOS [Internet]. 2024 Jul 1 [cited 2025 Jul 7];34(52):9–22. Available from: <https://ejournals.eplublishing.ekt.gr/>

<index.php/deltos/article/view/38306/28551>

2. Ideler JL. Physici Et Medici Graeci Minores. Vol. 1. Typis Et Impensis G. Reimeri; 1841.
3. a) <https://archive.org/details/littlewood-a.-r.-michael-psellus-oratoria-minora/Westerink%20L.G.%2C%20Mi>

chael%20Psellus%2C%20Poemata)

b) R. Volk, *Der medizinische Inhalt der Schriften des Michael Psellos*, Munich 1990

c) W. Hörandner, *Poetry in the Byzantine Society*, Kanakis (pul), Athens, 2017, pp 129-156 (in Greek)

4. van den Berg B, Zagklas N. The Didactic Poetry of Niketas of Herakleia and the Use of Verse in Byzantine Teaching Practice. In: *Poetry in Byzantine Literature and Society* (10811204): New Texts, New Approaches [Internet]. Cambridge: Cambridge University Press; 2024. p. 139160. Available from: <https://www.cambridge.org/core/product/794E79899383D42EF165015F2CFDEF6A>

5. Psellus M. Michaelis Pselli Poemata [Internet]. Westerink LG, editor. B. G. Teubner; 1992 [cited 2025 Jul 7]. Available from: <https://archive.org/details/littlewood-a.-r.-michael-psellus-oratoria-minora/Westerink%20L.G.%2C%20Mi-chael%20Psellus%2C%20Poemata>

6. Psellus M. Michaelis Pselli Poemata [Internet]. Westerink LG, editor. B. G. Teubner; 1992 [cited 2025 Jul 7]. Available from: <https://archive.org/details/littlewood-a.-r.-michael-psellus-oratoria-minora/Westerink%20L.G.%2C%20Mi-chael%20Psellus%2C%20Poemata>

7. Diamandopoulos A. Ιστορικά στοιχεία από την χρήση της ουροσκοπίας για την διάγνωση και πρόγνωση διαφόρων συστηματικών παθήσεων. Η βυζαντινή μαρτυρία. Αλκυονίδες Ημέρες “Ο νεφρός στα συστηματικά νοσήματα”; 2001 Mar 15.

8. Petros Bouras-Vallianatos. Two Byzantine Medical Texts in Verse Translated into English: Diagnosis and Treatment of Disease. *Deltos*. 2024 Jul 1;34(52):23-31.

9. Psellus M. Michaelis Pselli Poemata [Internet]. Westerink LG, editor. B. G. Teubner; 1992 [cited 2025 Jul 7]. Available from: <https://archive.org/details/littlewood-a.-r.-michael-psellus-oratoria-minora/Westerink%20L.G.%2C%20Mi-chael%20Psellus%2C%20Poemata>

10. Psellus M. Michaelis Pselli Poemata [Internet]. Westerink LG, editor. B. G. Teubner; 1992 [cited 2025 Jul 7]. Available from: <https://archive.org/details/littlewood-a.-r.-michael-psellus-oratoria-minora/Westerink%20L.G.%2C%20Mi-chael%20Psellus%2C%20Poemata>

11. Psellus M. Michaelis Pselli Poemata [Internet]. Westerink LG, editor. B. G. Teubner; 1992 [cited 2025 Jul 7]. Available from: <https://archive.org/details/littlewood-a.-r.-michael-psellus-oratoria-minora/Westerink%20L.G.%2C%20Mi-chael%20Psellus%2C%20Poemata>

12. Diamandopoulos A. Comments on the treatise “On Urines”: by the wisest Nicephorus Vlemmydes. In: *Musical Uroscopy*. Patra: Achaean Publications; 1995.

13. Diamandopoulos A. *Musical Uroscopy*. Musical Uroscopy. Athens: Typogramma; 1996.

14. Diamandopoulos A. Ιστορικά στοιχεία από την χρήση της ουροσκοπίας για την διάγνωση και πρόγνωση διαφόρων συστηματικών παθήσεων. Η βυζαντινή μαρτυρία. Αλκυονίδες Ημέρες “Ο νεφρός στα συστηματικά νοσήματα”; 2001 Mar 15.

15. Psellus M. Michaelis Pselli Poemata [Internet]. Westerink LG, editor. B. G. Teubner; 1992 [cited 2025 Jul 7]. Available from: <https://archive.org/details/littlewood-a.-r.-michael-psellus-oratoria-minora/Westerink%20L.G.%2C%20Mi-chael%20Psellus%2C%20Poemata>

16. Nima Akbarpour. DĀNĪŠ-NĀMA, a medical book in Persian poetry - Nima Akbarpour - Medium [Internet]. Medium. 2023 [cited 2025 Jul 7]. Available from: <https://nima.medium.com/d%C4%81ni%C5%A1-n%C4%81ma-a-medical-book-in-persian-poetry-9075432c5b17>

17. Furukawa A. *Medical History Through Postage Stamps*. St. Louis - Tokio: Ishiyaku EuroAmerica, Incorporated; 1994.

18. Haven C. Krueger. *Avicenna's Poem on Medicine*. Illinois: Charles Thomas; 1963.

19. Dimitri Gutas. *Avicenna and the Aristotelian tradition: introduction to reading Avicenna's philosophical works*. Boston: Brill; 2014.

20. Forcada M. Didactic poems on medicine and their commentaries in medieval al-Andalus and Western Islam. *Suhayl Journal for the History of the Exact and Natural Sciences in Islamic Civilisation* [Internet]. 2020 [cited 2025 Jul 7];165–204. Available from: <https://www.raco.cat/index.php/Suhayl/article/view/377832>

21. Benjelloun EB. Didactic poetry in medicine: an example from a unique manuscript at Al Quarawiyin Library of Fez. 2024.

22. Bower H. *Middle English Medical Recipes and Literary Play*, 1375-1500. Oxford University Press; 2022.

23. Holthausen F. *Medizinische Gedichte aus einer Stockholmer Handschrift* [Internet]. Leipzig: Max Niemeyer; [cited 2025 Jul 7]. Available from: <https://name.umdl.umich.edu/CME00098>

24. Opsomer C. *Livre des Simples Médecines: Codex Bruxellensis IV. 1024*, a 15th-century French herbal. English translation by Roberts E, Stearn WT. Vol. 1. Antwerp: De Schutter; 1984. p. 10–13.

25. DiPippo G. The rite of blessing of the Agnus Deis [Internet]. New Liturgical Movement; 2020 Apr [cited 2025 Jul 7]. Available from: <https://www.newliturgicalmovement.org/2020/04/the-rite-of-blessing-of-agnus-deis.html>

26. Dioscorides Pedanius. *De materia medica*. Book 5, section 113.

27. Barrett S. Herbal remedies in a medieval Irish remedy book: context and challenges [Internet]. *Herbal History*; 2022 Jan 25 [cited 2025 Jul 7]. Available from: [https://www.herbalhistory.org/home/herbal remedies\\_in\\_a](https://www.herbalhistory.org/home/herbal remedies_in_a)

28. Bouras-Vallianatos P. Pseudo-Galenic texts on urines and pulse in Late Byzantium. In: Petit C, Swain S, Fischer K-D, editors. *Pseudo-Galenica: The formation of the Galenic corpus from antiquity to the Renaissance*. London: Warburg Institute; 2021. p. 98–128.

29. Ψαλτολόγιον. Μέτρο ιαμβικών ειρμών και μελοποιεία [Internet]. Available from: <https://analogion.com/forum/index.php?threads/μέτρο-ιαμβικών-ειρμών-και-μελοποιεία>

30. Foundation of the Hellenic World. *Βυζαντινή Λογοτεχνία* [Internet]. Available from: <https://www.ime.gr/projects/cooperations/byzantine-literature>

31. Hörandner W, Rhoby A, Zagklas N. *A Companion to Byzantine Poetry*. Cambridge: Cambridge University Press; 2024.

antine Poetry. Leiden: Brill; 2019. (Brill's Companions to the Byzantine World; vol. 4). p. xiv, 576. ISBN: 9789004391086. Review by Kaltsogianni E.

32. Psellus M. An excellent medical work in the iambic manner. In: Ideler JL, editor. *Physici et Medici Graeci Minores*. Vol. 1. Berolini: Reimer; 1841. p. 202. Referred in: Diamandopoulos A. *Joannes Zacharias Actuarius: A witness of late Byzantine uroscopy, closely linked with Thessaloniki*. *Nephrol Dial Transplant*. 2001;16(Suppl 6):2–3.

33. Plutarch. *De Pythiae oraculis*. In: [www.poesialatina.it](http://www.poesialatina.it) [Internet]. 1st century AD [cited 2025 Jul 7]. Available from: <https://www.poesialatina.it>

34. NeutronSquid (uploader). Political verse in Greek poetry: history, form, and importance [Internet]. CourseSidekick; 2023 Apr 4 [cited 2025 Jul 7]. Available from: <https://www.coursesidekick.com/arts-humanities/4389898>

35. Wikipedia contributors. Byzantine music [Internet]. Wikipedia; 2008 Aug 16 [cited 2025 Jul 7]. Available from: [https://el.wikipedia.org/wiki/Byzantine\\_Music](https://el.wikipedia.org/wiki/Byzantine_Music)

36. Skarpetos A, editor. *Nephrological parahymnography: the texts and their presentation at the international scientific conference in Delphi* [Internet]. 2001 Feb 15 [cited 2025 Jul 7]. Available from: [http://i-m-patron.gr/i-m-patron-old.gr/keimena/nefrologiki\\_010214.html](http://i-m-patron.gr/i-m-patron-old.gr/keimena/nefrologiki_010214.html)

37. BBC Radio 4. The Poet and the Doctor [Internet]. 2024 Feb 2 [cited 2025 Jul 7]. Available from: <https://www.bbc.co.uk/programmes/b098gpgs>

38. Faruqi LI. *An Annotated Glossary of Arabic Musical Terms*. Westport: Greenwood Press; 1981.

39. Diamandopoulos A, Felescouras A. Description of a case with hypocalcaemia and acidosis in a patient with renal disease, from a Byzantine manuscript of the late Middle Ages. *Hellen Nephrol*. 1996;8(4):665–8.

40. Goudas PC, Diamandopoulos AA. On some exotic urine colours in ancient and Byzantine Greek literature. *J Nephrol*. 2011 May–Jun;24 Suppl 17:S114–22. doi:10.5301/JN.2011.6496. PMID: 21614792.

41. Diamandopoulos A, Diamandopoulou E, Marselos M. Exegesis. *DELOS Supplement*. 2025;1. In press.

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