

MEDIcal treatments in medieval leprosaria. Exploring healing remedies through dental **CAL**culus analysis

Dr Elena Fiorin

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I am a **bioarchaeologist** with an extensive training in the analysis of **human skeletal remains**.

My research interests focus on paleopathology, palaeodemography, dental occlusion analysis, and dental calculus analysis.



2004-2010 BA and MA in Archaeology

University of Padua, Italy



2008 ERASMUS (Seville, Spain)



2011-2015 PhD in Biology Autonomous University of Barcelona (Spain).



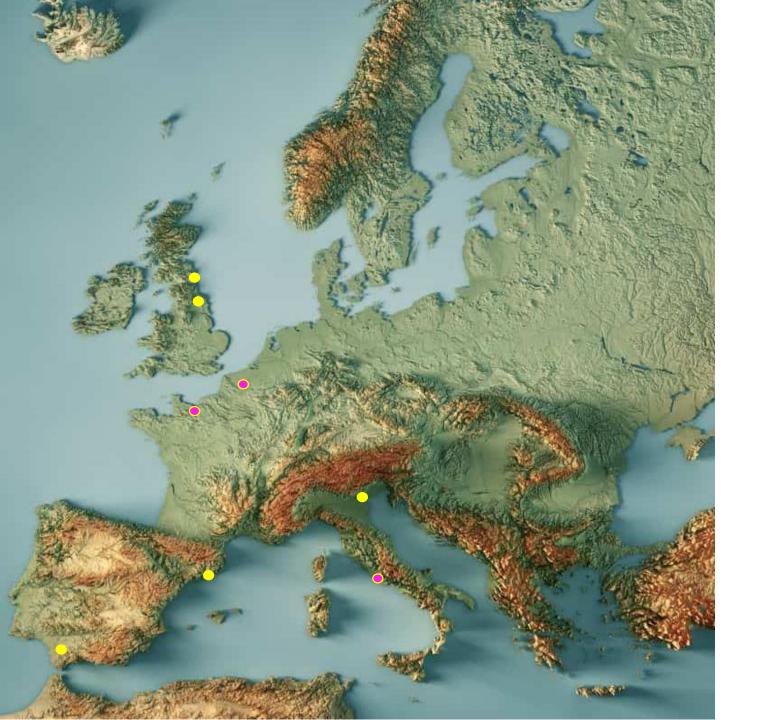
2014 Visiting student, Durham University (UK) and Smithsonian Institute (Washington DC, USA)

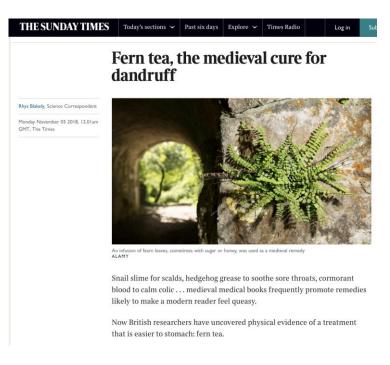


2016-2020 Postdoctoral research and other works Durham and York University (UK)

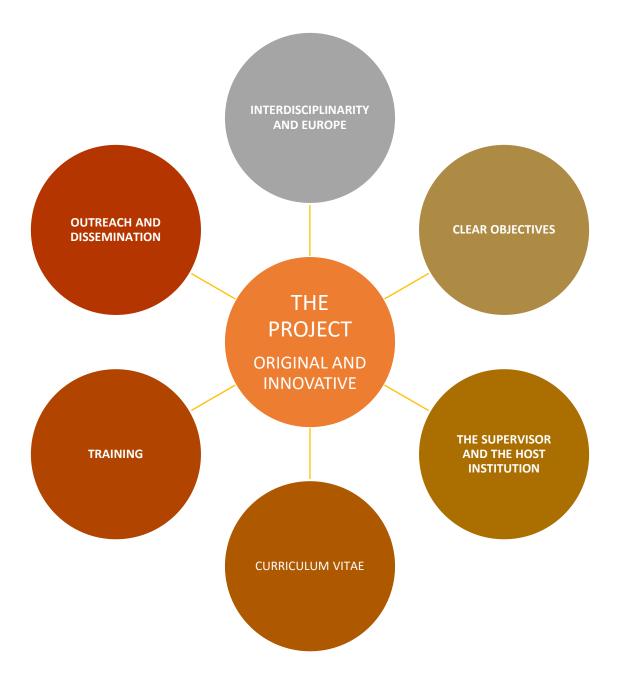


2020-2022 MARIE CURIE FELLOW
Sapienza University of Rome









MEDICAL project is innovative both in its subject matter and approach. It will shed new light on medieval medicine, and in particular on medical treatments for leprosy.

To date, these treatments are generally reported in medical treatises but they have never before been analysed objectively in the archaeological record.

...However, leprosaria are today judged to be places where medical care was generally poor or even completely absent.

Very few archaeological studies have so far been completed for any chronological or geographical context which explore metal concentrations in dental calculus in relation to past human lives...

...applications of ICP-MS are restricted to modern tartar samples...

This is therefore the first application of its kind to ancient medicine...

MEDICAL



LEPROSY

- HISTORY
- ARCHAEOLOGY



MEDIEVAL MEDICINE

- HISTORY
- ARCHAEOLOGY



DENTAL CALCULUS

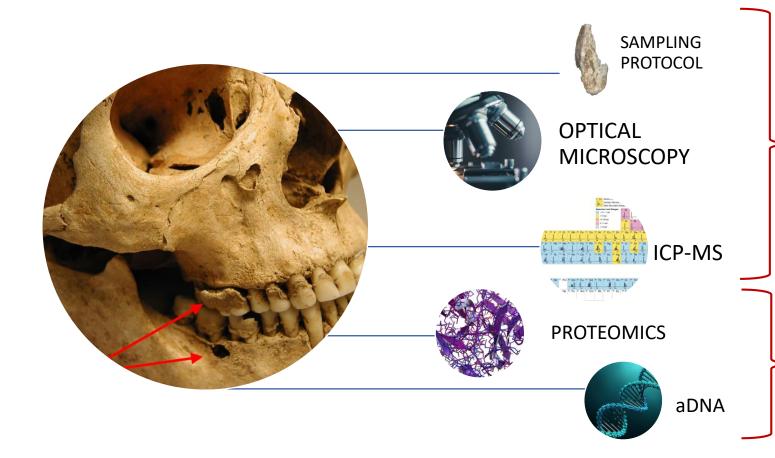
- METHODS
- POTENTIAL AND LIMITS







INTERDISCIPLINARITY AND TRAINING



PRESENT ANALYSES

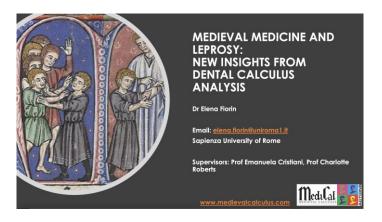
Identification and classification of microfossils (i.e. phytoliths, starch grains, spores, pollen)

Detect and measure toxic heavy metals with Inductively Coupled Plasma Mass Spectrometry (ICP-MS) and cold vapor atomic absorption technique (CVAAS)

FUTURE AVENUES

add information to microbiome composition, food consumption, interaction between the host and the pathogenic species

DISSEMINATION AND OUTREACH











Questionario sulla malattia di Hansen (Lebbra)

Il presente questionario si pone l'obiettivo di raccogliere dati riguardo alla malattia di Hansen, più comunemente conosciuta come lebbra, e conoscere la percezione che le persone hanno nei confronti di questa malattia. I risultati, specificando che questo questionario é assolutamente anonimo, verranno raccolti e pubblicati per finalità di ricerca scientifica. Si richiede dunque di rispondere onestamente alle seguenti domande marcando la risposta che ritenete corretta. Questo questionario & stato tradotto dall'originale inglese redatto dalla prof.ssa Charlotte Roberts (Durham University). Grazie per la vostra collaborazione.

- Che cos'è la lebbra?
 - a. Un tumore
 - b. Un'infezione
 - c. Una malattia che colpisce le articolazioni
 - d. Non lo so
- 2. Qual è l'agente patogeno della lebbra?
 - a. Un virus
 - b. Un parassita
 - c. Un batterio
 - d. Non lo so
- 3. In quale parte del mondo è piu diffusa la lebbra?

Elena Fiorin (univ. de Rome La Sapienza) accueillie au service d'archéoanthropologie

PAR CRAHAM - PUBLIÉ 24/09/2021 - MIS À JOUR 02/11/2021

Elena Fiorin, chercheuse à l'université de Rome La Sapienza, a été accueillie du 13 au 24 septembre 2021 au sein du service d'archéoanthropologie du Craham dans le cadre d'un projet intitulé « Medical - Medieval Calculus » auquel Cécile Chapelain de Seréville-Niel (Craham) est également associée. Ce projet est financé par une Action Slodowska-Marie Curie (ASCM, conseil européen de la recherche) et se déroule à l'université de Rome La Sapienza. Son objectif est d'étudier le régime alimentaire et les soins médicaux prodigués aux malades vivant dans des léproseries en Europe du Nord à la fin de la période médiévale (1100-1550). Ce projet est mand annula dispetan de la De Ferranda



INHH

International Network for the History of Hospitals

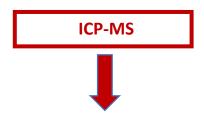


Posted on June 17, 2020 by sarahlennardbrow

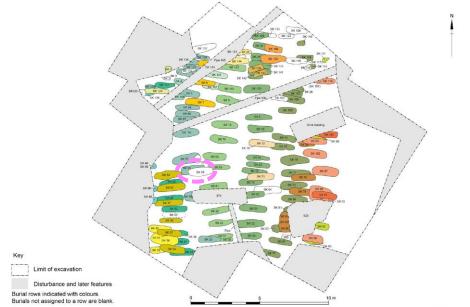
The Secret Life of Teeth: How Dental Calculus Can Shed Light on Medieval Medical Treatments for Leprosy

FIRST RESULTS: ST LEONARD'S LEPER HOSPITAL, ENGLAND





High concentration of mercury in an adult female of the first phase of the cemetery (XI-XIII) who was probably affected by lepromatous leprosy.





Fragment of the right maxilla, porosity on the nasal surface of the palate



DC sample analysed on the left mandible (LLM2)

Elaura 2: Skalaton number