PALEOPATHOLOGY ASSOCIATION

SCIENTIFIC PROGRAM

44th Annual North American Meeting
Westin Hotel  NEW ORLEANS
April, 2017
PALEOPATHOLOGY ASSOCIATION
44th Annual North American Meeting
WESTIN HOTEL, NEW ORLEANS
April 17-19, 2017

SCIENTIFIC PROGRAM

Monday, April 17
Pre-Meeting Excursion (9.30am – 5.00pm) Meet at *** Level
Registration (6:00pm – 9:00pm) 3rd Floor Prefunction

Tuesday, April 18
Registration (7:45am – 5:00pm) 3rd Floor Prefunction
Student Action Committee Raffle (7:45am – 5:00pm)

Morning Session (8:30 – 11:30am):

Workshop I. Azalea 1
8:30 – 11:00 Epidemiology is a risky business: paleopathology & paleoepidemiology
(hosted by Jesper Boldsen & George Milner)

Workshop II. Azalea 2
8:30 – 11:00 Body Modification: “Like a Hole in the Head?” (hosted by John Verano & David Hunt)

Lunch (11:30am - 1:30pm)

Afternoon Session (1:30 – 5:00pm)

Podium Presentations Azalea Ballroom
Part I (1:30 – 3:00pm) Chair:

1:30 How should we diagnose disease in palaeopathology? Some epistemological considerations. Simon Mays
1:45 Don't judge a bone by its cover: Investigating long-term consequences of extremity trauma in palaeopathology. Rebecca Gilmour, Tracy Prowse & Erik Jurriaans
2:00 General trends in the prevalence of DISH in English and Catalan populations from the Roman to the Post-Medieval time periods. Laura Castells Navarro & Jo Buckberry
2:15 Pathologies associated with Pellagra. Myra Miller
2:45 Life behind the wall: a study of skeletal remains found in female cloisters from the 16th to the 20th century. Nataša Čarkić, Lucia Muñoz & Jesús Herrerín

*** - Entrant for the Cockburn Student Prize +++ - Entrant for the Early Career Prize
3:00 – 3:30 Break

Part II (3:30 – 5:00pm) Chair:

3:30 ‘The scourge of the seas’ Osteological evidence of scurvy in late 18th century British sailors. Ceridwen Boston & Catherine Sinnott

3:45 Examining the pathoecological role of dogs among the Loma San Gabriel through the analysis of coprolites from La Cueva de Los Muertos Chiquitos, Durango, Mexico. Johnica Morrow, E Grady & Karl Reinhard

4:00 Like Mother, Like Child: Investigating change and continuity in infant and maternal health stress in Medieval and Post-Medieval London. Claire Hodson & Rebecca Gowland

4:15 Differential diagnosis of possible treponemal and mycobacterial infections in a late-19th century semi-nomadic sample in Jordan. Alysha Lieurance, Mallory Provan & Megan Perry

4:30 Revisiting Avulsion Fractures: Bioarchaeological Methods and Interpretations. Jennifer Byrnes & Kevin Knowles

4:45 Interpreting Fracture Healing in the Archaeological Record: Socioeconomic Status and Fracture Treatment in Industrial-era London. Derek Boyd & Colleen Milligan

Student Action Committee Events (5:00 – 6:30pm) Salon Room

5:00 – 5:45 Student Group Discussion Panel. Chair: Jessica Walker

DETAILS TO BE CONFIRMED

5:45 – 6:30 Student Group Meeting. Chair: Amanda R. Harvey

Association Business Meeting and Dinner (6:45 – 10:00pm) River 127 & Terrace

Cash bar, followed by dinner

Wednesday, April 18

Registration (8:00 – noon) 3rd Floor Prefunction

Student Group Raffle (8:30am – 5:00pm)

Morning Session (8:30 – noon) Azalea Ballroom

SYMPOSIUM. Vitamin D Deficiency: New Perspectives Under Past Light

Organized by Megan Brickley.

Part I (8:30-9:50am) Chair: Jane Buikstra

8:30 Introduction. Megan Brickley.

8:35 The discovery and synthesis of the nutritional factor, Vitamin D. Glenville Jones

8:50 Vitamin D’s role in health and disease: Does the present inform the past? Stephanie Atkinson

9:05 The pathology of vitamin D deficiency in animals: a comparative overview. Elizabeth Uhl

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9:20  Vitamin D metabolism in feral and captive nonhuman primates as an evolutionary approach to understanding vitamin D in humans. Toni Ziegler

9:35  Discussion: How can current research in biomedicine and non-human species contribute to understanding and interpreting vitamin D deficiency in past communities?

9:50 – 11:00  Break & Poster Session I  Atrium Ballroom A

Including POSTER SYMPOSIA:
Paleopathology of Andean South America: 20 Years of Advances and Future Prospects
(organized by J. Marla Toyne, Haagen D. Klaus & Melissa Murphy)

Health correlates of “The Little Ice” (A.D. 1300-1850): New questions, new insights
(organized by Maria Ostendorf Smith)

Vitamin D Deficiency: New Perspectives Under Past Light (posters)

Posters in place all day. In addition to the Andean Paleopathology, Little Ice Age and Vit D symposia posters, authors of odd numbered posters from the Open Poster session will be present during this break.
Poster titles and authors listed at the end of the program.

Part II (11:00 – 12 noon)  Chair: Susan Pfeiffer
Symposium. Vitamin D Deficiency: New Perspectives Under Past Light (continued)

11:00  Documentary sources on the early history of vitamin D deficiency disease. Simon Mays

11:15  Vitamin D deficiency across the Western Roman Empire. Megan Brickley, Michele George, Simon Mays & Tracy Prowse

11:30  Gender-related risk of vitamin D deficiency development in a Dutch post-medieval farming community. Barbara Veselka, Lida van der Merwe, Menno Hoogland & Andrea Waters-Rist

11:45  Rare paleopathological insights into vitamin D deficiency rickets, co-occurring illnesses and documented cause of death in mid-19th century London. Rachel Ives

12:00  The biosocial context of osteomalacia in the Rima Rau cave site skeletal material from the Cook Islands. Hallie Buckley, Annie Snoddy & Sian Halcrow

12:15  Vitamin D deficiency: new perspectives under past light. Nina Jablonski

12:30  Discussion: How can we use archaeological human remains to learn more about the past?

12:45 – 1:55  Lunch – Let’s Do Lunch

Student Group Silent Auction (2:00 – 5:00pm)
Afternoon Session I (2:00 – 5:00pm)

Podium Presentations  Azalea Ballroom  (2:00 – 2:45)  Chair: Niels Lynnerup

2:00  “Flipping” the immunopathobiology of acquired syphilis to reconstruct host immunological status and estimate heterogeneity in frailty. Molly Zuckerman


2:30  Needles in haystacks: Bacterial profiling and pathogen detection in ancient remains. Kirsten Bos, Åshild Vågene, Tanvi Honap, Frank Maixner, Albert Zink, Jane Buikstra, Anne Stone, Daniel Huson, Alexander Herbig & Johannes Krause

2:45  3D and paleopathology poster symposium: image capture, scanning, visualization & printing (organized by Niels Lynnerup & Chiara Villa)

3:00 – 4:00  Break & Poster Session II  Magnolia Ballroom

Posters in place all day. In addition to the 3D symposium posters, authors of even numbered posters from the Open Poster session will be present during this break. Poster titles and authors listed at the end of the program.

Part II (4:00 – 5:30pm)  Azalea Ballroom  Chair:  Brief Discussions of Poster Symposia  Special Session: Local Bioarchaeology & Paleopathology

4:00  3D and paleopathology: image capture, scanning, visualization & printing

4:15  Paleopathology of Andean South America

4:30  Health correlates of “The Little Ice” (A.D. 1300-1850)

4:45  Ill at Ease in the Big Easy: Disease and Death in New Orleans.  Prof Christi Sumich  Prof Heather Knight TBC

5:15  Closing Remarks and Announcements, Award of Cockburn Student Prize and Early Career Prize, Announcement of SG Raffle and Silent Auction Winners.  Piers Mitchell

*** - Entrant for the Cockburn Student Prize  +++ - Entrant for the Early Career Prize
Posters

Vitamin D Deficiency: New Perspectives Under Past Light

(Posters associated with Podium Symposium, organized by Megan Brickley)

1. Syndemics in palaeopathology? A Vitamin D case study. Judith LITTLETON

2. Radiographically recognizable? An investigation into the appearance of osteomalacic pseudofractures. Emma JENNINGS, Jo BUCKBERRY & Megan BRICKLEY


4. The Rachitic Tooth: The Use of Radiographs as a Screening Technique. Lori D’ORTENZIO, Isabelle RIBOT, Benoit BERTRAND, Bonnie KAHLO, Emmy BOCAEGE, Emeline RAGUIN, Annabelle SCHATTMANN & Megan BRICKLEY

5. Re-examination of the skeletal manifestations of rickets on immigrants from the historic population from St. Matthew, Quebec City (1771-1860). Marie-Hélène B-HARDY, Zocha HOULE-WIERZBICKI, Jacinthe VIGEANT, Emeline RAGUIN & Isabelle RIBOT

6. The relationship between vitamin D deficiency and leprosy in two English medieval populations. Sofia-Anna PAPADOPOULOU & Jo BUCKBERRY

7. The Shape of Things to Come: Growth in Children with Rickets. Sarah STARK, Sonia ZAKRZEWSKI & Simon MAYS

8. The Art of Diagnosing Rickets: a Test Against a Subadult Portuguese Sample in the Scheuer Collection. Jennifer AUSTEN & Craig CUNNINGHAM

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+++ - Entrant for the Early Career Prize
Paleopathology of Andean South America: 20 Years of Advances and Future Prospects

(Poster Symposium organized by J. Marla Toyne, Haagen D. Klaus & Melissa Murphy)

1. **Summer Has Lead Us Here: A Bibliographic Analysis of Recent Research Trends in South American Paleopathology.** J. Marla TOYNE, Melissa S. MURPHY & Haagen D. KLAUS
2. **Developmental Variations and the Andean Past: the Cultural and Demographic Implications of C2-C3 Block Vertebrae.** Anne R. TITELBAUM
3. **Defining Spatial Paleopathology: Assessing Geographic Risk for Cribra Orbitalia in the Andes.** Beth K. SCAFFIDI
5. **Curated Corpses: new insights into the human remains from the Moche site of Dos Cabezas, Peru.** In Memoriam of Professor Alana Cordy-Collins. Trish BIERS, Charles MERBS, Rose A. TYSON & David HUNT
6. **Perspectives on care and disability from the Rimac Valley, Peru.** Alejandra ORTIZ, Melissa S. MURPHY & Trisha BIERS
7. **Understanding Discrepancies in Juvenile Age Estimation: Paleopathological considerations for the study of Prehistoric Children from Southern Peru.** Kristie SANCHEZ, Maria Cecilia LOZADA & Rex C. HAYDON
9. **Addressing Activity Patterns through Statistical Methods: Generalized Estimating Equations Modelling of Multiple Data Points.** Sara K. BECKER
10. **Building a Social Paleopathology: What Ancient Stress can tell us about Community.** Sara L. JUENGST & Steven WERNKE
11. **Advancements in the Investigation of Tuberculosis in Pre-Columbian Peru.** Elizabeth A. NELSON, Jane E. BUIKSTRA, Tiffiny A. TUNG & Kirsten I. BOS
12. **Future Landscapes in Andean Paleopathology: Theory, Methods, and Questions for the next 20 years.** Haagen D. KLAUS, Melissa S. MURPHY, and J. Marla TOYNE

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Health correlates of “The Little Ice” (A.D. 1300-1850): New questions, new insights
(Poster Symposium organized by Maria Ostendorf Smith)

1. Health and diet under a dim light: paleoenvironmental anthropology of the LIA. Olalla LOPEZ-COSTAS & Antonio MARTINEZ CORTIZAS
2. Health and the Little Ice Age north of the Alps: Relationship between Stress, Nutritional Deficiencies, and Disease. Leslie Lea WILLIAMS & Clark Spencer LARSEN
3. Skeletal Environmental Markers (SEM): A new method for quantifying the effects of climate change on Romanian human skeletal populations from the Little Ice Age. Annamaria DIANA
7. Pre-Columbian health status and climate change: AD 1300-1600 in southern Appalachia. Maria Ostendorf SMITH, Lindsey HELMS-THORSEN, Dustin L. LLOYD
8. The effects of the Little Ice Age on oral health and diet in populations from continental Croatia. Mario NOVAK, Željka BEDIĆ, Vlasta VYROUBAL, Siniša KRZNAR, Ivor JANKOVIĆ, Emma LIGHTFOOT & Mario ŠLAUS
10. A study of three skeletal markers of childhood health in an urban and a rural adult population from medieval Denmark as influenced by the Little Ice Age. Charlotte PRIMEAU, Preben HOMØE & Niels LYNNERUP
11. The "Little Ice Age" and the Protohistoric Monongahela Demise: A Review of Health and Activity Markers in the Ohio Valley. Robyn WAKEFIELD-MURPHY
3D and Paleopathology: image capture, scanning, visualization & printing
(Poster Symposium organized by Niels Lynnerup & Chiara Villa)

1. A comparison of 3D models generated from three laser scanners. Chiara VILLA, Daniel GAUDIO, Cristina CATTANEO, Jo BUCKBERRY, Andrew WILSON & Niels LYNNERUP
2. 3D Visualisation in Palaeopathology. Jo BUCKBERRY, Andy HOLLAND, Tom SPARROW, Chris GAFFNEY & Andrew S. WILSON
3. 3D in 2.5D: The use of RTI on pathological and taphonomic processes in skeletal remains. Sarah Y. STARK & Sonia R. ZAKRZEWSKI
5. Through the looking glass: understanding the internal effects of carious lesions using micro-CT. Christianne FERNEE, Katharine ROBSON-BROWN, Alex DICKINSON, Chris WOODS & Sonia R. ZAKRZEWSKI
6. Gorm the Old - Denmark's First King: A new life in 3D. Marie Louise S. JØRKOV, Chiara VILLA & Niels LYNNERUP
7. Radiological findings in Egyptian canopic jars – comparing the three standard clinical imaging modalities (conventional X-ray, CT and MRI). Patrick EPPENBERGER, Mislav CAVKA, Porin SCUKANEC & Frank RUEHLI
8. The Consequences of a Hardened Lifestyle: Three-dimensional analyses of traumatic lesions from Middle Age Denmark. Elizabeth N. STEVENS
9. The use of computed tomography to reassess neoplasm diagnosis in prehistoric samples. Savannah LEACH
11. Early diagnosis of genetic dwarfism can be assessed on perinates by μCT-scan analysis of trabecular bone microarchitecture. Antony COLOMBO, Hélène COQUEUGNIOT, Menno HOOGGLAND, Olivier DUTOURE & Andrea WATERS-RIST
12. Use of 3D Topographic Reconstruction in the Analysis of Trauma Associated with Scalping: A Case Study. Arysa GONZALEZ, Christa D. KELLY & Christopher W. SCHMIDT
13. Forensic re-evaluation of a cranium with ante- and peri-mortem gunshot wounds of documented interval using MicroCT. Heather BONNEY & Rachel IVES

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Open Session Posters

1. **A Tale of Two Cities: Health and Trauma in Medieval Denmark.** Larissa COLLIER & Charlotte PRIMEAU
2. **Changes in Body Mass and Indulgence-Related Disorders Among Medieval Danes.** Kaela PARKER
3. **Cortisol and bone health: Integrating stress into biocultural approaches in paleopathology.** Kaitlin EAST
4. **A Case Study of Possible Childhood Illness.** Hailie NORMAN, Anna OSTERHOLTZ, Andre GONCIAR & Zsolt NYARADI
5. **A Forager Child with Compromised Health and Mobility from the Late Archaic, Southwestern Ontario.** Susan PFEIFFER & Thivviya VAIRAMUTHU
6. **A Case of Severe Infection and Trauma: Possible disability in prehistoric Alabama.** Diana S. SIMPSON
7. **Life and Death in Tell Edfu, Egypt: The Troubled Lives (and Deaths) of Three Individuals in the Twenty-first Century B.C.** Roselyn CAMPBELL
8. **The Child in the Pit: Death and Disability in Late Antiquity.** Katherine M. POMPEANI & Jeffrey H. SCHWARTZ
9. **Life Course Transitions and Dental Health at Roman Winchester (UK).** LC AVERY, Tracy L PROWSE & Megan B BRICKLEY
10. **Investigating the impact of air quality on the occurrence of respiratory disease in the Middle Nile Valley: Comparing Kerma and Medieval sites.** Anna BARRETT, Charlotte ROBERTS & Daniel ANTOINE
11. **Possible evidence for medical treatment in historic Iceland.** Joe W WALSER III, Tina JAKOB & Steinunn KRISTJÁNSDÓTTIR
12. **Out on a limb: changing body proportions and health during the Roman to Anglo-Saxon transition in England (3rd to 6th centuries AD).** Lauren J. WALTHER & Rebecca L. GOWLAND
13. **A Woman’s World: Pathological and Morphological Risks During Childbirth.** Candace MCGOVERN
14. **The Cost of Modern Life in Yucatan. Trauma Patterns in a Documented Cemetery Series from the City of Mérida, Yucatan, Mexico.** Julio CHI, Allan ORTEGA & Vera TIESLER
15. **Crossing the Threshold of Modern Life. Comparing Disease Patterns Between two Documented Cemetery Series from the City of Mérida, Yucatan, Mexico.** Vera TIESLER, Julio CHI KEB & Allan ORTEGA

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16. Porotic Hyperostosis and Shifting Health Pattern among Yucatecan Coastal Settlers Before and After the Maya Collapse. Raúl LÓPEZ, Allan ORTEGA, Julio CHI & Vera TIESLER

17. Investigating Vitamin C Deficiency in the Colonial Maya. Emmalea GOMBERG

18. On these shoulders we carry our burden: scapular and humeral entheseal changes for Ancestral Puebloans (875-1150 AD). Maryann CALLEJA, Elizabeth DUFFY, Cristina TICA & Debra MARTIN

19. Markers of Hardship and Otherness: Trauma, pathology, and cranial modification in a possible captive from Central Illinois. Allison FOLEY

20. ‘Parity features’ and social status at prehistoric sites in Austria. D PANY-KUCERA, M SPANNAGL-STEINER & K REBAY-SALISBURY

21. Cranial-caudal shift in the Morton Collection of Fulton County, IL. Ryann SEIFERS & Della COLLINS COOK

22. An Examination of Upper Respiratory Infection in Hunter-Fisher-Gatherers of the Middle Holocene Cis-Baikal, Russian Federation. Samantha PURCHASE-MANCHESTER, Angela LIEVERSE & Vladimir Ivanovich BAZALIISKII

23. Recording and interpreting signs of respiratory diseases from bones associated with the upper and lower respiratory tract, especially the skull and the ribs. Susan KLINGNER & Michael SCHULTZ

24. Considering evidence for hypertrophic pulmonary osteoarthropathy (HPO) as part of an integrative approach to chronic respiratory infection: Evidence from Isola Sacra in Roman period Italy. Laura LOCKAU & Alessandra SPERDUTI

25. The Langobards in Italy: A Bioarchaeological Analysis of the 7th Century AD Necropolis of Sovizzo in Vicenza, Italy. Ashley MAXWELL & Rosanne BONGIOVANNI

26. External auditory exostoses and maritime resource procurement in ancient Cyprus. Kirsi O. LORENTZ

27. Prevalence of Dental Caries as Correlate of Weaning Age. Kristi CARNAHAN

28. Linear Enamel Hypoplasia Frequency during the Roman Occupation of London. Mark CLEMENTE

29. Dental caries and mandible morphology: how the location and prevalence of dental caries may influence morphology of the mandible through altered masticatory patterns and performance. Cara HIRST

30. The Precarious Search for Caries: Oral Health at the Medieval site of La Granède, France. Leslie QUADE & Stephan NAJI

31. Dental Wear Trends in Late Archaic and Woodland Period Populations in Eastern US. Heather PAXSON

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32. Non-Masticatory Tooth Wear in an Early Bronze Age Population from Southern Poland. Mark TOUSSAINT & Piotr WŁODARCZAK

33. Dental Caries and Periodontitis in Post-Medieval London Cemeteries. Catherine G HUDSON & Chelsey JUAREZ

34. A Case of a Dilacerated Molar: Differential diagnoses of abnormal dental development from a historic cemetery. Kevin C KNOWLES

35. Aberrant tooth number and its utility in the paleopathology of syndromes. Lita SACKS


37. Down in the mouth: distributions of dental and oral conditions in human skeletal remains from Philistine period Ashkelon, Israel. Kathryn E. MARKLEIN, Rachel KALISHER & Sherry C. FOX

38. Symphalangism among the Philistines at Ashkelon, Israel. Sherry FOX, Kathryn MARKLEIN, Rachel KALISHER, Marina FAERMAN & Patricia SMITH

39. Reassessing the misidentification of a Tripolye trepanation. Trisha JENZ, Kayla KUBEHL & Jordan KARSTEN

40. Implications for Pathology Associated with Femoral Neck Torsion at Woodland Ridge. Jessica M. CHEVROLET, Brenda L. DETTY & Christopher W. SCHMIDT

41. Bilateral Anomaly Affecting the Greater Trochanter: Exploring Etiologies through Differential Diagnosis. Erik PORTER, Jordan TEMPLES & Lesley GREGORICKA

42. Identifying Stone Axe Cranial Trauma in the U.S. Southwest: Experimental Paleopathology. Ashley A HANNIGAN, Justin R ELMER & Ryan P HARROD


44. The geographic, temporal, and demographic contexts of interpersonal violence in the later Holocene of southern Africa’s Cape West Coast. Elizabeth DOYLE & Rebecca GILMOUR

45. Situs Inversus: Viscera Transposition and Associated Skeletal Anomalies. Kristen PEARLSTEIN & Brian SPATOLA

46. Premature and trauma-induced sutural fusion in a protohistoric cranium. Pina S SIMONE, Cortney M. CONNOR, Rebecca S. JABBOUR, & Gary D. RICHARDS

47. A Quantitative Approach to Distinguishing Two Forms of Cranial Modification in Andahuaylas, Peru. Davette N. GADISON

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48. Osteoarthritis Patterns at the Santa Clara Valley Medical Center Hospital Cemetery, 1871-1935. Martha N. DIAZ & Eric J. BARTELINK

49. Doomed to Die? An Examination of Demographics and Comorbidity During the 1918 Influenza Pandemic in Milwaukee. Ashley L. BRENAMAN


51. The effects of hydrochloric acid on fleshed porcine ribs. Amaretta J. AZEVEDO

52. Metagenomic analysis of ethanol-preserved museum wet tissue specimens Giada FERRARI, Frank J. RÜHLI & Abigail S. BOUWMAN

53. Revisiting Weeden Island human remains and signs of syphilis at Bayshore Homes, St. Petersburg, Florida. Madeleine YEAKLE, John KRIGBAUM, Donna RUHL & Neill WALLIS

54. An examination of two cases of erosive polyarthritis at the Early Iron Age site of Neiyangyuan, Shanxi Province, China. Mauricio HERNANDEZ, Dong WEI & Hong ZHU

55. The case of a Portuguese postman died from leprosy in 1931 and the paleopathological analysis of his skeleton. Vítor MATOS, Giovanni MAGNO, Alexandra AMOROSO & Susana GARCIA

56. Bones by the Bay: Paleopathological Analysis of a Late 19th Century Anatomical Skeletal Assemblage from Point San Jose (Fort Mason), San Francisco. Kristen A. BROEHL, Colleen MILLIGAN, Eric BARTELINK, P. WILLEY & Peter GAVETTE

57. An Examination of Endocranial Lesions on Juvenile Individuals from the Tennessee River Valley. Jaimie IDE


59. Biological compensation to ill health status and traumatic injury as evidenced through entheseal stress patterns in a historically documented population (Hamann-Todd Collection 1913-1935). Anna ALIOTO & Michelle MACHICEK

60. A Probable Case of Leprosy from Colonial Period St. Vincent and the Grenadines, Southeastern Caribbean. Greg C. NELSON, Taylor N. DODRILL & Scott M. FITZPATRICK

61. Do you kneed some assistance? Secondary osteoarthritis as a result of trauma to the quadriceps muscles. Olof OLAFARDOTTIR

62. The Poultice Recommended for Surgical Interventions on Head Wounds in the Hippocratic Corpus. Did it Work? Anagnostis P. AGELARAKIS, Argiro AGELARAKIS & Benjamin WEEKS

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63. **Secondary hypertrophic osteoarthropathy – a rare condition in a human skeleton from the early medieval settlement site at Lauchheim, Germany.** Stefan FLOHR, Isabelle JASCH, Antje LANGER, Martin RIESENBERG, Julia HAHN, Axel WISOTZKI, Horst KIERDORF, Uwe KIERDORF & Joachim WAHL

64. **Cortical bone mass in the second metacarpal and fragility fractures in two Portuguese reference collections.** Francisco CURATE, Catarina NOGUEIRA, Andreia PERINHA, Cláudia UMBELINO & Eugénia CUNHA

65. **Cranial Trauma at Woodland Ridge.** Jessica GREGORY, Jessica MUNOZ & Christopher SCHMIDT

66. **Reconstructing the manner of death from cranial trauma.** Caitlin HUMPHREY & Maciej HENNEBERG

67. **A probable case of metastatic carcinoma from post-Medieval Belgium.** Jessica L. A. PALMER, Kim QUINTELIER & Andrea L. WATERS

68. **A Rare Case of Osteosarcoma in the Ethmoid Bone with Possible Proptosis.** Khrystyne TSCHINKEL, Gabriel PRIETO & John VERANO

69. **Difficulties and Developments in Differential Diagnosis of Cancer in Archaeological Remains.** Jennifer WILLOUGHBY

70. **Mercury levels may be misleading as indications of syphilis treatment.** Stella IOANNOU & Maciej HENNEBERG

71. **Collective burial or Neolithic crime scene?** Sofija STEFANOVIC, Natasa SARKIC & Sasa ZIVANOVIC
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