Original Article
ISSN (Online): 2350-0530
ISSN (Print): 2394-3629

International Journal of Research - GRANTHAALAYAH
February 2023 11(2), 47–54

INTRODUCING ELECTROMAGNETIC ENERGY FROM HYDROCOLLOID WOUND DRESSING PASTE PENETRATING A GLASS BARRIER DISRUPTING HUMAN SKIN LIPID DROPLETS SIZE AND MEMBRANES: POSSIBLE IMPLICATIONS IN CANCER CELLS GENESIS AND/OR CURE

Abrahám A. Embí [1]

[1] BS MBA,13442 SW 102 Lane Miami, 33186, Florida, United States

Received 08 February 2023
Accepted 25 February 2023
Published 28 February 2023

Corresponding Author
Abraham A. Embi, embi21@att.net

DOI
10.29121/granthaalayah.v11.i2.2023.5032

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

ABSTRACT

Prior publication demonstrated exogenous energy from a Hydrocolloid Wound Dressing strip had penetrated a 1 mm glass slide barrier slowing the evaporation of drops of water diluted Potassium Ferricyanide crystals of formula K3[Fe(CN6)]; and consequently, altering a human mini organ hair follicle metabolism. In that paper, a recommendation was made stating that "The introduction of exogenous non-biological material, namely a hydrocolloid wound dressing justified inclusion in future research protocols "In this manuscript, in vitro research is presented whereby harvested human skin lipid droplets were exposed also to a hydrocolloid wound dressing paste (HCWP) sandwiched between two glass slides (SDW). Results via microscopy images demonstrate the deleterious effect of the electromagnetic energy emitted by the HCWP, again documented penetrating a 1 mm glass on human skin lipid droplets membranes. Implications up to and including cancer genesis of this newly documented energy emission are unknown, although, it should be emphasized that the reprogramming of lipid metabolism is a hallmark of many cancers, including breast cancer. Additionally in 2016 electromagnetic energy emitted by the breakdown of H2O2 during cell respiration had been hypothesized to be a contributing factor in cancer genesis.

Keywords: Hydrocolloid Dressing Paste, Exogenous Energy, Potassium Ferricyanide, Cancer Research, Cancer Genesis, Cancer Cure, Human Skin Lipid Droplets

DEFINITION OF TERMS

K3Fe: Acronym for the Potassium Ferricyanide formula $K_3[Fe(CN)_6]$.
SDW: Sandwich. When material is trapped between two identical glass slides.
HCWP : Hydrocolloid Wound Paste

1. INTRODUCTION

Prior research had demonstrated energy emitted by a commercially available hydrocolloid wound dressing HCWP penetrating a 1 mm glass barrier and altering the metabolism of a human miniorgan a.k.a. hair follicle Figure 1 (Embí (2022), Schneider et al. (2009)). In this manuscript the HCWP energy is also shown

penetrating a 1mm glass barrier; this time instead of a human hair follicle as sentinel, the testing was done on human skin lipid droplets.

Images show a newly described effect of HCWP, being the altering of the human lipid droplets membranes as seen in (Figure 2).

Figure 1

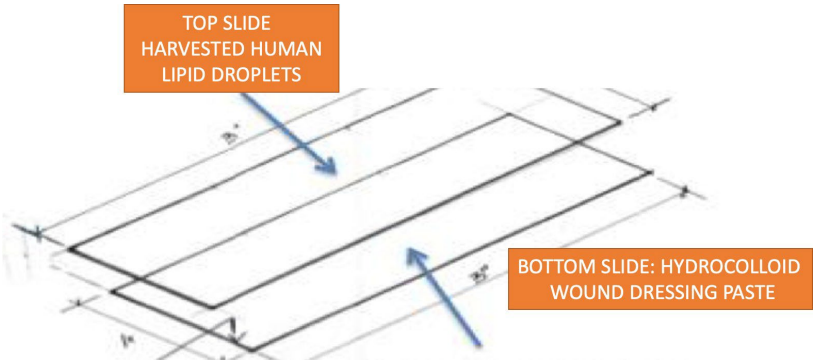

Figure 1 Showing Slide Assembly Tailored for Sensing the Hydrocolloid Paste Energy Through A 1 Mm Thick Slide

DUODERM PASTE ENERGY PENETRATING A GLASS BARRIER SHOWING EFFECT ON HUMAN SKIN LIPID DOPLETS

Figure 2

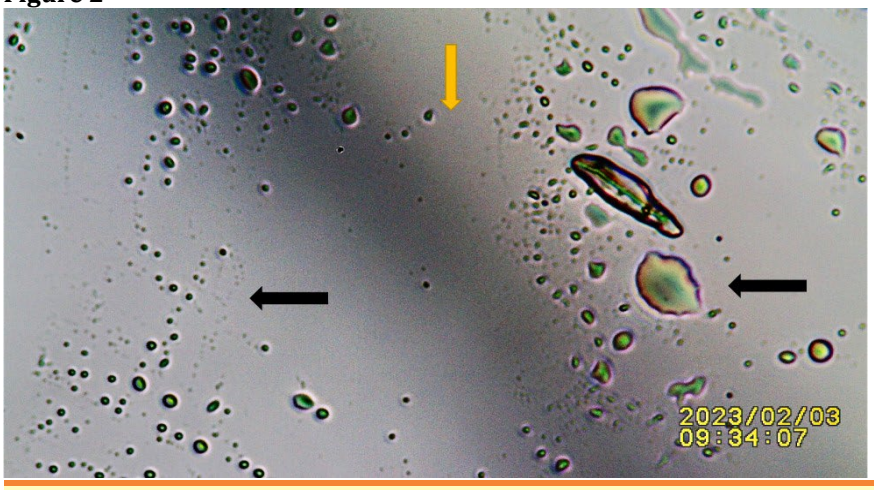

Figure 2 Showing Top Slide of Sandwiched Hydrocolloid Wound Dressing Paste (HCWP) Effect on Human Lipid Droplets. Orange Arrow: Out of Focus Outline of Hydrocolloid Paste Boundary in Bottom Slide. Black Arrow Right. Deformed Amplified Lipid Droplets When Directly Over HCWP Area. Black Arrow Left: Unaltered Lipid Droplets Unexposed To HCWP

Lipids are known to be part of numerous functions, as stated "Lipids perform three primary biological functions within the body: they serve as structural components of cell membranes, function as energy storehouses, and function as important signalling molecules" (Cleveland Clinic Bulletin).

2. MATERIALS AND METHODS MATERIALS

Harvested Lipid molecules from human skin and lizard tail Potassium Ferricyanide powder of formula $K_3[Fe(CN)_6]$.

Two stacked glass slides 25x75x1mm Bottled water drops.

Freshly harvested human skin lipid droplets. DuoDerm Hydrocolloid Wound Dressing Paste. Video-Microscope

MacBook Air Apple computer equipped with photo application program.

3. METHODS

Two glass slides (25x75x1mm) were used for the purpose of testing the effect of a Hydrocolloid Wound dressing paste HCWP. One drop of the viscous paste was placed in the center of the bottom slide and covered by a second slide. Finger pressure was applied to the top slide causing the HCWP to flatten. Prior to assembly, the top slide was firmly pressed on author's forehead skin, then the slide side with the adhered lipid molecules was aligned with the bottom counterpart, thus completing assembly. As needed, lipid droplets from human skin and fragments of detached lizard tails were tested outside the HCWP range to compare the effect on lipid droplets. All data including video-recordings stored in a Macbook Pro 14" Apple Computer with Photo Application for data retrieval and interpretations.

4. RESULTS

Images and video-recordings are presented of two different approaches aimed to document the radiated energy effect of HCWP penetrating a 1 mm thick glass slide on lipid droplets. This cross-species in vitro approach in human and reptile supports the universality of energy emitted electromagnetic waves from biological and non-biological matter. Both able to penetrate glass barriers and altering the metabolism of a human miniorgan and harvested human skin lipid droplets.

5. DISCUSSION

Electromagnetic energy is defined as "Radiation that has both electric and magnetic fields and travels in waves. It comes from natural and man-made sources.

Electromagnetic radiation can vary in strength from low energy to high energy. It includes radio waves, microwaves, infrared light, visible light, ultraviolet light, x-rays, and gamma rays" [Boozalis et al. (2012)].

The unexpected Hydrocolloid paste electromagnetic emissions.

Emitted energy penetrating glass barriers could be the electromagnetic type since in the experiments presented, the HCWP smeared and sandwiched between two glass slides is demonstrated influencing liquid Potassium Ferricyanide crystals through the 1 mm thickness of the sandwich top slide (Figure 1).

Ruling out HCWP crystals as a microscopy image amplification artifact

The microscopy images of the smeared HCWP paste smeared on a glass slide show randomly scattered small crystals. On occasion overlapping crystals are commonly seen (Upper left side Figure 3). This author had to rule out the microscopy light source triggering a magnified image as it penetrates the HCWP as the shown by magnified Potassium Ferricyanide crystals as shown in (Upper right side of Figure 3).

FIGURE SHOWING DUODERM PASTE EFFECT ON POTASSIUM FERRICYANIDE CRYSTAL AND LIZARD LIPID DROPLETS

Figure 3

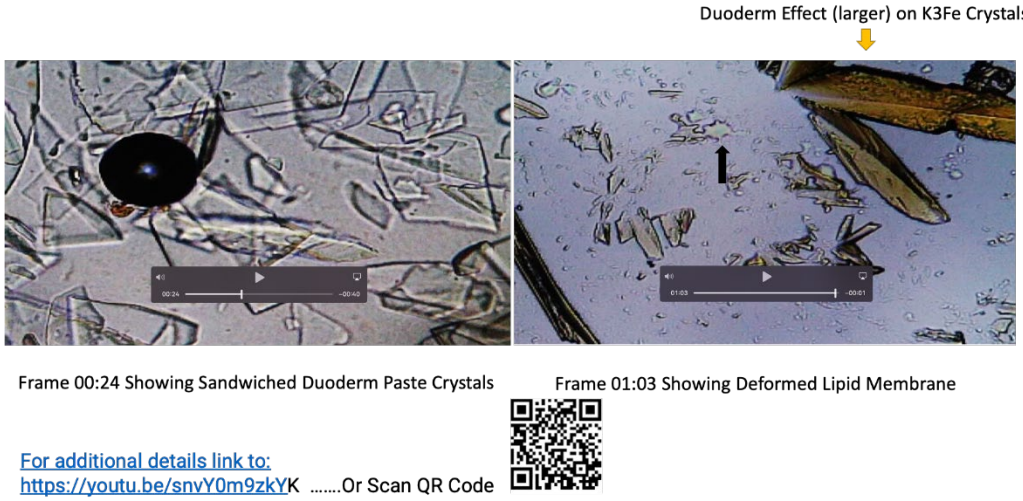

Figure 3 Selected Video-Frames Documenting Hydrocolloid Paste Energy Through A 1 Mm Glass Slide Causing Lipid Droplet Membrane Deformation. Suggested Scan QR Code for Further Details

IMAGE BELOW SHOWING MAGNIFYING EFFECT OF HYDROCOLLOID PASTE ON POTASSIUM FERRICYANIDE CRYSTALS THROUGH A 1 MM GLASS BARRIER

Figure 4

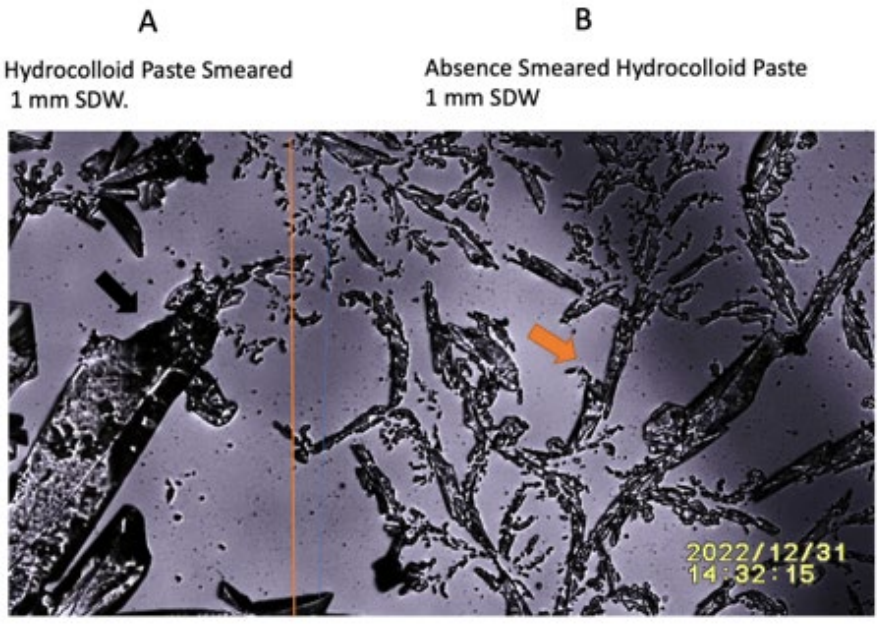

Figure 4 Effect Hydrocolloid Paste electromagnetic energy penetrating a 1 mm Glass barrier on K3Fe crystals size. A: Black Arrow pointing at larger crystals. B: Red Arrow pointing at smaller crystals

6. THE MAGNIFYING EFFECT OF HCWP

In all experimental preparations, there is a consistent image magnification observed not only in the experiments done for this manuscript; but also displayed in the introductory paper entitled "Introducing Hydrocolloid Wound Dressing Energy Disrupting Human Tissue Metabolism" (Embí (2022)). The persistent observed optical magnification by the HCWD needed to be challenged therefore, a graduated gridline was placed and recorded on a plain slide, and through the sandwiched HCWP. Zero magnification from HCWP was seen in the HCWP challenge (Figure 5).

GRID LINES WERE DOCUMENTED ON A CONTROL SLIDE, AND AT 1 MM DISTANCE IN A HCWP SANDWICH

Figure 5

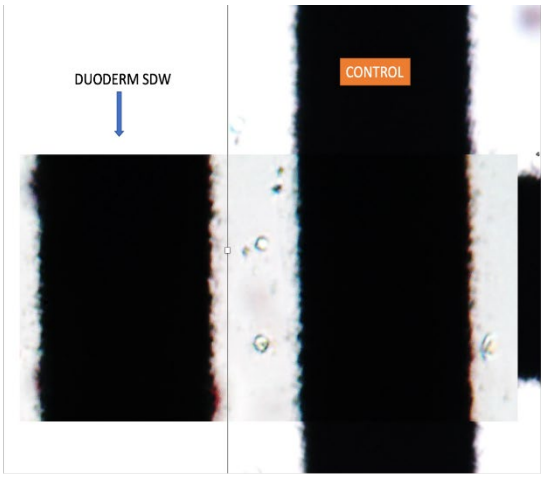

Figure 5 Superimposed Grid Lines Images Showing Same Magnification (Control Vs Duoderm Paste) In Bottom Slide

7. HARVESTING LIPID MOLECULES FROM A DETACHED LIZARD TAIL

Small reptiles (lizards) are known to store energy in the proximal portion of their tails [Boozalis et al. (2012)]. They also have the property inducing spontaneous detachment of the tail (Sanggaard et al. (2012)). Such a detachment occurred in a small lizard in my backyard, the sample was collected, and the detached wider area was cut in small segments via a sharp razor blade. The samples were placed on a glass slide and covered by drops of liquid Potassium Ferricyanide (K3Fe) diluted in water. As the K3Fe evaporated, the crystallization backwards suction (Embí (2020)) eventually reached the drifting lipid droplets. The actual drifting was recorded and a typical image of K3Fe crystal can be viewed in the figures below (Figure 6, Figure 7)

THE FIGURE BELOW SHOWING EFFECT OF AND ADVANCING POTASSIUM FERRICYANIDE CRYSTAL PENETRATING AND TRANSFERRING THE LIZARD TAIL INTRA-LIPID MOLECULE CONTENTS

Figure 6

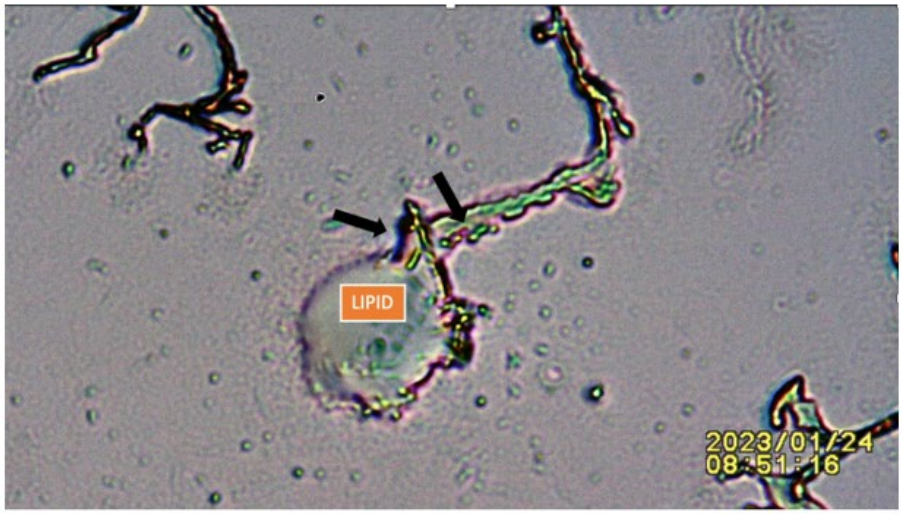

Figure 6 Potassium Ferricyanide Penetrating Lipid Membrane. Black Arrows: Showing Point of Perforation and Lipid Droplet Contents Transfer

SECOND EXAMPLE OF ADVANCING CRYSTALS PERFORATING LIZARD LIPID DROPLET MEMBRANES. NOTICE LIPID FLUID GRAVITATING INTO THE SURROUNDING AREA

Figure 7

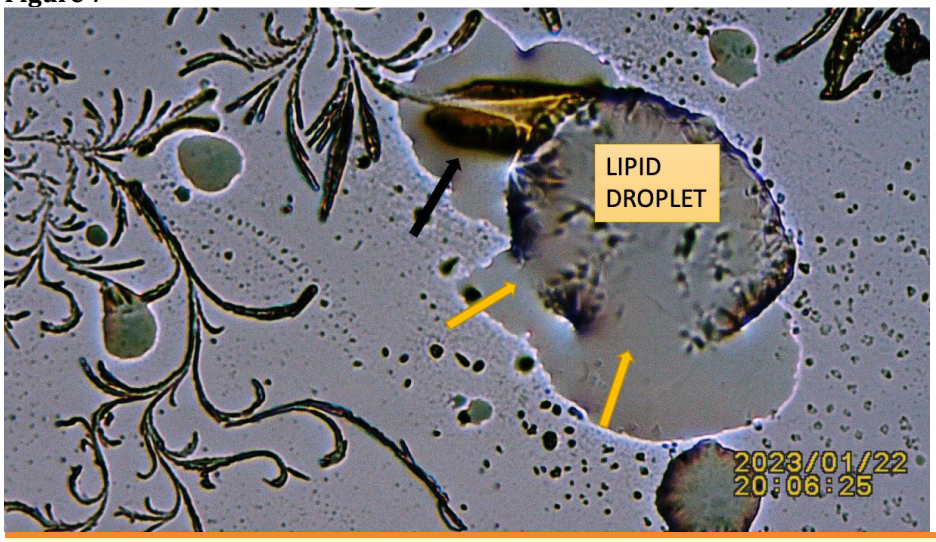

Figure 7 Second Example of Pierced Lipid Molecule. Orange Arrows: Broken Membrane Points. Black Arrow: Contact Point of Apparent Crystal Generated Electrical Discharge Causing Membrane Rupture

8. EFFECT OF DUODERM PASTE THROUGH A 1 MM GLASS BARRIER

Since it could be argued that the Potassium Ferricyanide undergoing crystallization could have interacted with the lipid molecules, thus causing the deformed membranes seen above (Figure 6, Figure 7 above), a different approach was idealized whereby human skin lipid droplets were directly transferred onto a glass slide surface. This was done by pressing the slide directly on skin tissue; the author's forehead and facial cheeks were selected. Upon viewing the slide, numerous lipid droplets were present. The fresh harvested human lipids were exposed to the indirect (through a 1 mm barrier) presence of "Duoderm" hydrocolloid paste. Please refer to (Figure 2) confirming the effect of the HCWP alone energy penetrating a 1 mm glass barrier.

9. CONCLUSION

In this manuscript documentation showing the electromagnetic energy emitted by a wound care paste HCWP (Hydrocolloid Wound Paste) is re-introduced, this time testing forehead human lipid molecules adhered onto a glass slide. In a previous paper (Embí (2022)) energy emitted from a HCWS (Hydrocolloid Wound Strip) was initially introduced altering Potassium Ferricyanide crystals as well the hair follicle (a.k.a. miniorgan) metabolism. In both instances (Strip and Paste) a similar effect on Potassium Ferricyanide crystal was documented. Except, that this time lipid droplets size increased, and membranes altered to the point of spilling contents into the surrounding space are introduced.

The questions arise:

1) What if any is/are the effect(s) on human tissue from the electromagnetic energy emitted by a wound dressing?

   Unknown at present.

2) Does the benefit of a faster wound healing outweigh any possible long-term harm to healthy tissue?

   Unknown at present.

3) What would the effect be on cancerous or normal cells?

Needs further research. Endogenous low level electromagnetic radiation emissions were hypothesized in 2016 in cancer genesis (Embi (2016), Embi (2019), Embí and Haltiwanger (2019), Embi (2019). and lipid molecules size and membrane changes are now presented in this manuscript. Bringing additional

questions: What if any impact has the newly introduced electromagnetic energy emitted by the hydrocolloid wound be on normal and cancer cells?

We must investigate further!!

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

REFERENCES

Boozalis, T. S., Lasalle, L. T., and Davis, J. R. (2012). Morphological and Biochemical Analyses of Original and Regenerated Lizard Tails Reveal Variation In Protein and Lipid Composition. Comparative Biochemistry and Physiology. Part A, Molecular and Integrative Physiology, 161(1), 77–82. Https://Doi.Org/10.1016/J.Cbpa.2011.09.004

Cleveland Clinic Bulletin. Health Library. Revised 2023.

Electromagnetic Fields and Cancer. (2022). National Institutes of Health (National Cancer Institute).

Embi, A. A. (2016). Endogenous Electromagnetic Forces Emissions During Cell Respiration as Additional Factor in Cancer Origin. Cancer Cell International, 16, 60. Https://Doi.Org/10.1186/S12935-016-0337-Y.

Embi, A. A. (2019). Introducing in Vitro Experiments of Oxygen Bubbles Shock Waves Triggering Intracellular Lipids Luminescence: Implications in Canceretiology. International Journal of Research -Granthaalayah, 7(4), 355–364. Https://Doi.Org/10.29121/Granthaalayah.V7.I4.2019.921.

Embi, A. A.(2019). Proposed Mechanism in Cancer Cure Claim. The Lipid Connection. Journal of Cancer Prevention and Current Research, 10(3), 61–62. Https://Doi.Org/10.15406/Jcpcr.2019.10.00392.

Embí, A. A.(2022). Introducing Hydrocolloid Wound Dressing Energy Disrupting Human Tissue Metabolism. International Journal of Research - Granthaalayah, 10(10), 58–65. https://doi.org/10.29121/granthaalayah.v10.i10.2022.4836.

Embí, A. A. and Haltiwanger, S. (2019). "The Transduction of Cellular Membrane Proteins and Structural Cell Membrane Alterations Induced by Exogenous Energy Waves Energizing Lipid Droplets as the Proposed Underlying Mechanism In Very Intensive Pressure Pulses Treatments Claims to a Cancer Cure.". Internationaljournal of Research - Granthaalayah, 7(5), 299–310. Https://Doi.Org/10.5281/Zenodo.3249099.

Embí, A. A. (2020). Introducing Crystallization Backward Suction Trapping Lipids and Debris as Proposed Additional Factor In The Genesis of Coronary Artery Disease. International Journal Of Research -Granthaalayah, 8(9), 215–233. Https://Doi.Org/10.29121/Granthaalayah.V8.I9.2020.1174.

Sanggaard, K. W., Danielsen, C. C., Wogensen, L., Vinding, M. S., Rydtoft, L. M., Mortensen, M. B., Karring, H., Nielsen, N. C., Wang, T., Thøgersen, I. B., and Enghild, J. J. (2012). Unique Structural Features Facilitate Lizard Tail Autotomy. Plos One, 7(12), E51803. Https://Doi.Org/10.1371/Journal.Pone.0051803.

Schneider, M. R., Schmidt-Ullrich, R., and Paus, R. (2009). The Hair Follicle as a Dynamic Miniorgan. Current Biology, 19(3), R132–R142. Https://Doi.Org/10.1016/J.Cub.2008.12.005.