

## Supplementary Information

### Knee osteoarthritis in young growing rats is associated with widespread osteopenia and impaired bone mineralization

Supitra Namhong<sup>1,2</sup>, Kannikar Wongdee<sup>2,3</sup>, Panan Suntornsaratoon<sup>1,2</sup>,  
Jarinthorn Teerapornpuntakit<sup>2,4</sup>, Ruedee Hemstapat<sup>5</sup>, Narattaphol Charoenphandhu<sup>1,2,6,7\*</sup>

<sup>1</sup>Department of Physiology, Faculty of Science, Mahidol University, Bangkok, Thailand

<sup>2</sup>Center of Calcium and Bone Research (COCAB), Faculty of Science, Mahidol University, Bangkok, Thailand

<sup>3</sup>Faculty of Allied Health Sciences, Burapha University, Chonburi, Thailand

<sup>4</sup>Department of Physiology, Faculty of Medical Science, Naresuan University, Phitsanulok, Thailand

<sup>5</sup>Department of Pharmacology, Faculty of Science, Mahidol University, Bangkok, Thailand

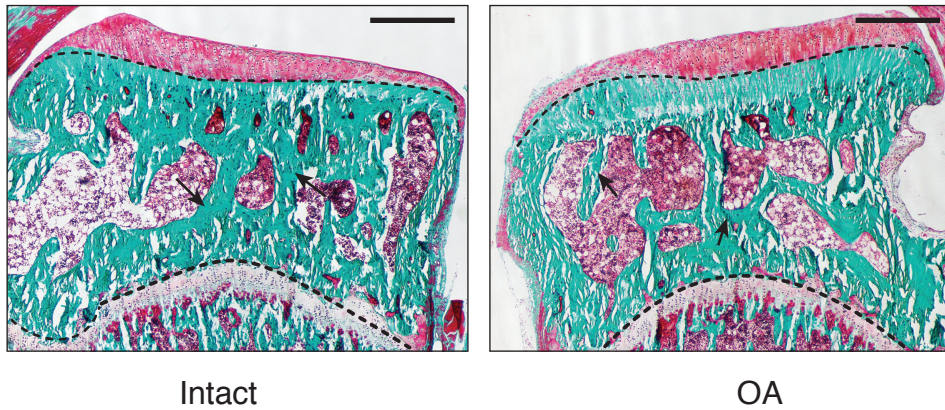
<sup>6</sup>Institute of Molecular Biosciences, Mahidol University, Nakhon Pathom, Thailand

<sup>7</sup>The Academy of Science, The Royal Society of Thailand, Bangkok, Thailand

#### Correspondence to:

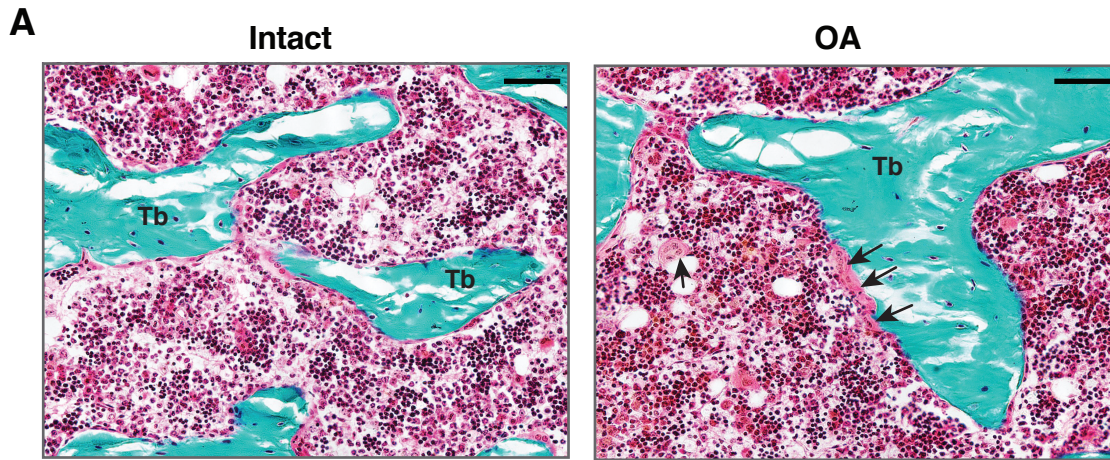
Narattaphol Charoenphandhu, M.D., Ph.D.  
Department of Physiology  
Faculty of Science, Mahidol University  
Rama VI Road, Bangkok 10400  
Thailand  
Tel & Fax: +66-2-354-7154  
E-mail: naratt@narattsys.com

### Subchondral area in tibia

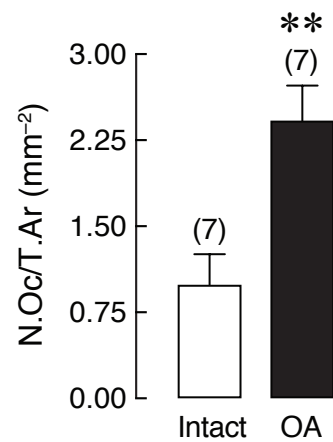


**Supplementary Figure S1:** Namhong et al.

**Figure S1:** Representative photomicrographs of Goldner's trichrome stained proximal tibia obtained from 20-week OA rat and its intact tibia. Areas within the dash lines were subchondral bone area. Mineralized trabeculae (arrows) and marrow cells were stained green and red, respectively. Bars, 1 mm.



**B Osteoclast number in tibia**



**Supplementary Figure S2:** Namhong et al.

**Supplement Figure S2:** (A) Representative photomicrographs of Goldner's trichrome stained tibia obtained from 20-week OA rat and its intact tibia. Mineralized trabeculae (Tb) and marrow cells active osteoclasts were localized on the bone surface. Bars, 50  $\mu$ m. (B) Osteoclast number (N.Oc) normalized by tissue area (T.Ar). Numbers of animals in each group are shown in parentheses. \*\* $P < 0.01$  vs. intact group.