

# *Homo naledi*, a new species of the genus *Homo* from the Dinaledi Chamber, South Africa

Lee R Berger<sup>1</sup>, John Hawks<sup>2</sup>, Darryl J de Ruiter<sup>3</sup>, Steven E Churchill<sup>4</sup>, Peter Schmid<sup>5</sup>, Lucas K Delezeene<sup>6</sup>, Tracy L Kivell<sup>7</sup>, Heather M Garvin<sup>8</sup>, Scott A Williams<sup>9</sup>, Jeremy M DeSilva<sup>10</sup>, Matthew M Skinner<sup>11</sup>, Charles M Musiba<sup>12</sup>, Noel Cameron<sup>13</sup>, Trenton W Holliday<sup>14</sup>, William Harcourt-Smith<sup>15</sup>, Rebecca R Ackermann<sup>16</sup>, Markus Bastir<sup>17</sup>, Barry Bogin<sup>18</sup>, Debra Bolter<sup>19</sup>, Juliet Brophy<sup>20</sup>, Zachary D Cofran<sup>21</sup>, Kimberly A Congdon<sup>22</sup>, Andrew S Deane<sup>23</sup>, Mana Dembo<sup>24</sup>, Michelle Drapeau<sup>25</sup>, Marina C Elliott<sup>26</sup>, Elen M Feuerriegel<sup>27</sup>, Daniel Garcia-Martinez<sup>28</sup>, David J Green<sup>29</sup>, Alia Gurtov<sup>30</sup>, Joel D Irish<sup>31</sup>, Ashley Kruger<sup>32</sup>, Myra F Laird<sup>33</sup>, Damiano Marchi<sup>34</sup>, Marc R Meyer<sup>35</sup>, Shahed Nalla<sup>36</sup>, Enquye W Negash<sup>37</sup>, Caley M Orr<sup>38</sup>, Davorka Radovic<sup>39</sup>, Lauren Schroeder<sup>40</sup>, Jill E Scott<sup>41</sup>, Zachary Throckmorton<sup>42</sup>, Matthew W Tocheri<sup>43</sup>, Caroline VanSickle<sup>44</sup>, Christopher S Walker<sup>45</sup>, Pianpian Wei<sup>46</sup>, and Bernhard Zipfel<sup>47</sup>

## Abstract

*Homo naledi* is a previously-unknown species of extinct hominin discovered within the Dinaledi Chamber of the Rising Star cave system, Cradle of Humankind, South Africa. This species is characterized by body mass and stature similar to small-bodied human populations but a small endocranial volume similar to australopiths. Cranial morphology of *H. naledi* is unique, but most similar to early *Homo* species including *Homo erectus*, *Homo habilis* or *Homo rudolfensis*. While primitive, the dentition is generally small and simple in occlusal morphology. *H. naledi* has humanlike manipulatory adaptations of the

bioRxiv preprint doi: <https://doi.org/10.1101/054836>; this version posted November 15, 2015. The copyright holder for this preprint (which was not certified by peer review) is the author/funder, who has granted bioRxiv a license to display the preprint in perpetuity. It is made available under aCC-BY-NC-ND 4.0 International license.

These humanlike aspects are contrasted in the postcrania with a more primitive or australopith-like trunk, shoulder, pelvis and proximal femur. Representing at least 15 individuals with most skeletal elements repeated multiple times, this is the largest assemblage of a single species of

1 /



CaSSius

---



CaSSius









CaSSius











CaSSius









CaSSius









CaSSius









CaSSius





CaSSius







CaSSius



CaSSius



CaSSius







CaSSius



CaSSius









CaSSius







CaSSius



CaSSius

