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(71) **Applicant:** **AMAZENTIS SA** [CH/CH]; Parc Scientifique EPFL, PSE-C, CH-1024 Ecublens (CH).

(72) Inventor; and

(71) **Applicant :** **RINSCH, Christopher, L.** [US/CH]; 60 Rue de Lausanne, CH-1110 Morges (CH).

(72) **Inventors:** **BLANCO-BOSE, William**; Chemin Chantemerle 13T, CH-1010 Lausanne (CH). **SCHNEIDER, Bernard**; Av. des Cerisiers 37, CH-1009 Pully (CH). **MOUCHIROUD, Laurent**; Avenue de Cour 126, CH-1007 Lausanne (CH). **RYU, Dongryeol**; Ch de Bourg-des-sus 20, CH-1020 Renens VD (CH). **ANDREUX, Penelope**; 3 av d'Evian, CH-1006 Lausanne (CH). **AUWERX, Johan**; 8 rue Roger de Lessert, CH-1168 Buchillon (CH).

(74) **Agents:** **STEELE, Alan, W.** et al.; Foley Hoag LLP, Patent Group, 155 Seaport Boulevard, Boston, MA 02210-2600 (US).

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(54) **Title:** ENHANCING AUTOPHAGY OR INCREASING LONGEVITY BY ADMINISTRATION OF UROLITHINS OR PRECURSORS THEREOF

(57) **Abstract:** Disclosed are methods, compounds, and compositions useful for increasing autophagy and promoting longevity. The methods, compounds, and compositions relate to urolithins and urolithin precursors and use thereof. Certain urolithins are represented by Formula I, while certain urolithin precursors are represented by Formula IV. The urolithin may be urolithin A, urolithin B, urolithin C, or urolithin D. The urolithin precursor may be ellagic acid or an ellagitannin. The methods include in vivo, ex vivo, and in vitro uses of the compounds and compositions.

