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(12) United States Patent
Zeng et al.**(10) Patent No.: US 9,616,024 B2****(45) Date of Patent: Apr. 11, 2017****(54) PROCESS FOR PREPARING A
MEDICAMENT****(71) Applicant: Norton Healthcare Ltd., London (GB)****(72) Inventors: Xian-Ming Zeng, London (GB); Seah
Kee Tee, London (GB)****(73) Assignee: Norton Healthcare Ltd., London (GB)****(*) Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.**(21) Appl. No.: 15/137,671****(22) Filed: Apr. 25, 2016****(65) Prior Publication Data**

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2004, now Pat. No. 9,345,664.**(60)** Provisional application No. 60/499,582, filed on Sep.
2, 2003.**(51) Int. Cl.****A61K 9/14** (2006.01)**A61M 15/00** (2006.01)**A61K 31/58** (2006.01)**A61K 9/00** (2006.01)**A61K 31/167** (2006.01)**A61K 31/137** (2006.01)**A61K 9/16** (2006.01)**A61K 31/56** (2006.01)**(52) U.S. Cl.**CPC **A61K 9/1694** (2013.01); **A61K 9/0075**
(2013.01); **A61K 9/1623** (2013.01); **A61K**
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A61K 31/56 (2013.01); **A61K 31/58** (2013.01)**(58) Field of Classification Search**

None

See application file for complete search history.

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Primary Examiner — Robert A Wax*Assistant Examiner* — Randeep Singh**(74) Attorney, Agent, or Firm** — Morgan, Lewis &
Bockius, LLP**(57) ABSTRACT**The present invention provides a process for preparing a
particulate medicament that has greater homogeneity and a
lower adhesion between the particles of the active ingredient
and the carrier. The process comprises the steps of: (a)
combining a pharmaceutically active ingredient in the form
of an agglomerate of primary particles having an agglom-
erate particle size such that the agglomerate is capable of
passing through a sieve having a mesh of 50-3000 .mu.m
with a pharmaceutically acceptable particulate carrier, and
(b) mixing the resultant material in a mixer to break up the
agglomerate into primary particles dispersed in the pharma-
ceutically acceptable particulate carrier such that 90% or
more of the pharmaceutically active ingredient exists as
primary particles having a particle size of 50 .mu.m or less.**9 Claims, 5 Drawing Sheets**