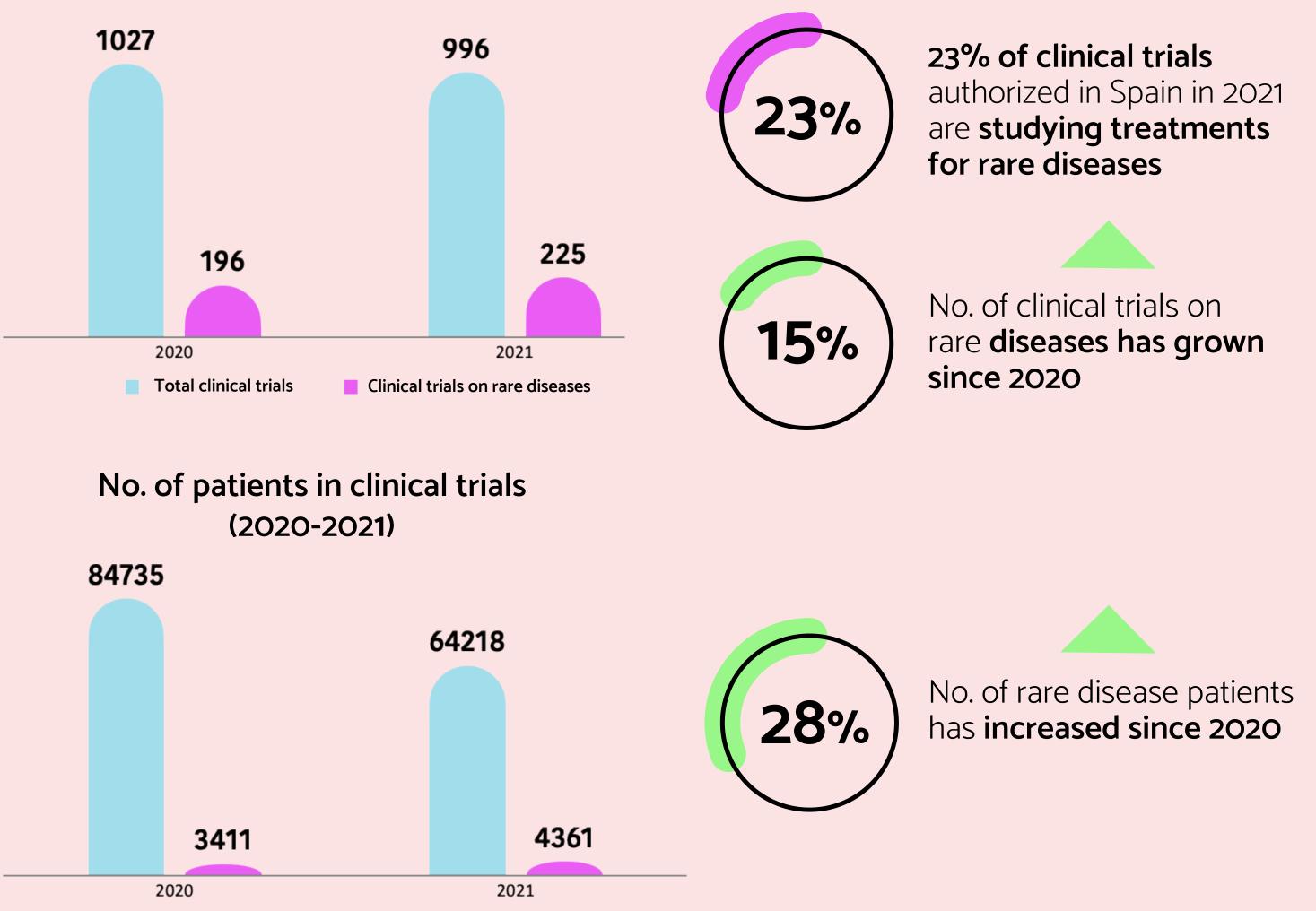
safety and efficacy of medicines. Currently, 95% of rare diseases have no diagnostic tool or treatment.

No. of clinical trials (2020-2021)

mechanisms used to determine the

Clinical trials are research

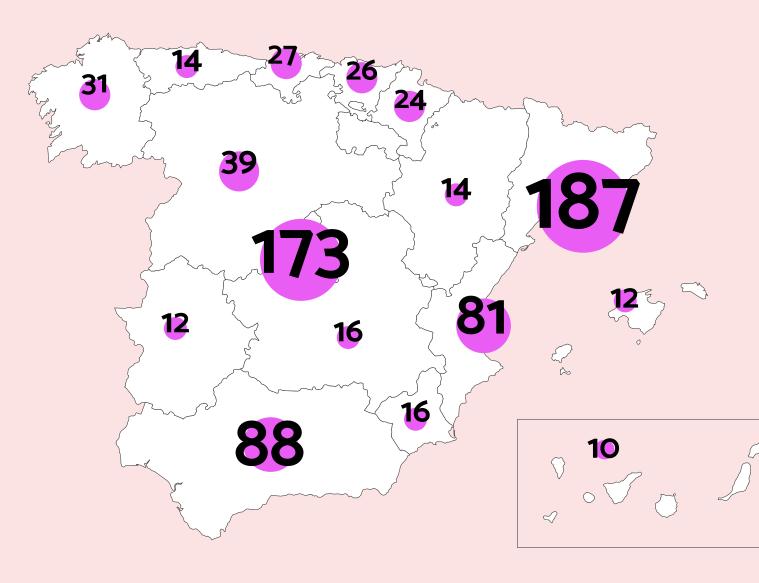


CLINICAL TRIALS ON RARE DISEASES IN SPAIN 2021*

spanish association of orphan and ultra-orphan drug laboratories

95%

AUTHORIZED CLINICAL TRIALS ON RARE DISEASES BY AUTONOMOUS COMMUNITY IN 2021**



Participants on rare diseases

Catalonia, the Community of Madrid and Andalusia are the Autonomous Communities with the highest participation in clinical trials on rare diseases

148 different centres hosted the 225 authorized trials.

Total participants

Catalonia (30 centres), Community of Madrid (25 centres) and Andalusia (17 centres) accounted for 49% of the participating centres.



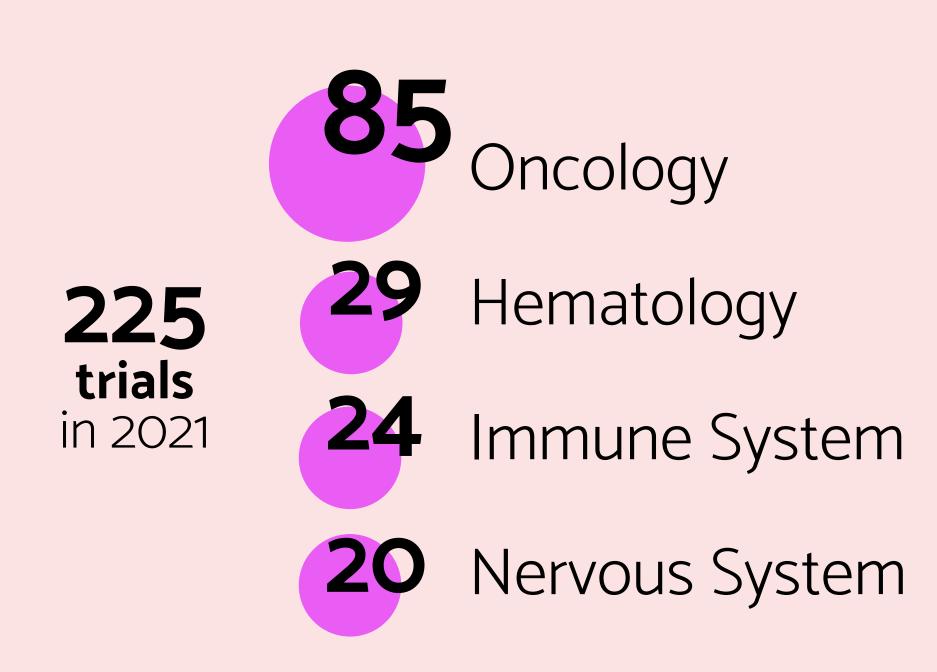


54

- Vall D'Hebron University Hospital (Barcelona)
 - 12 de Octubre University Hospital (Madrid)

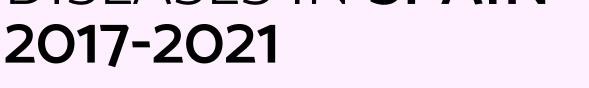


CLINICAL TRIALS ON RARE DISEASES BY THERAPEUTIC AREA

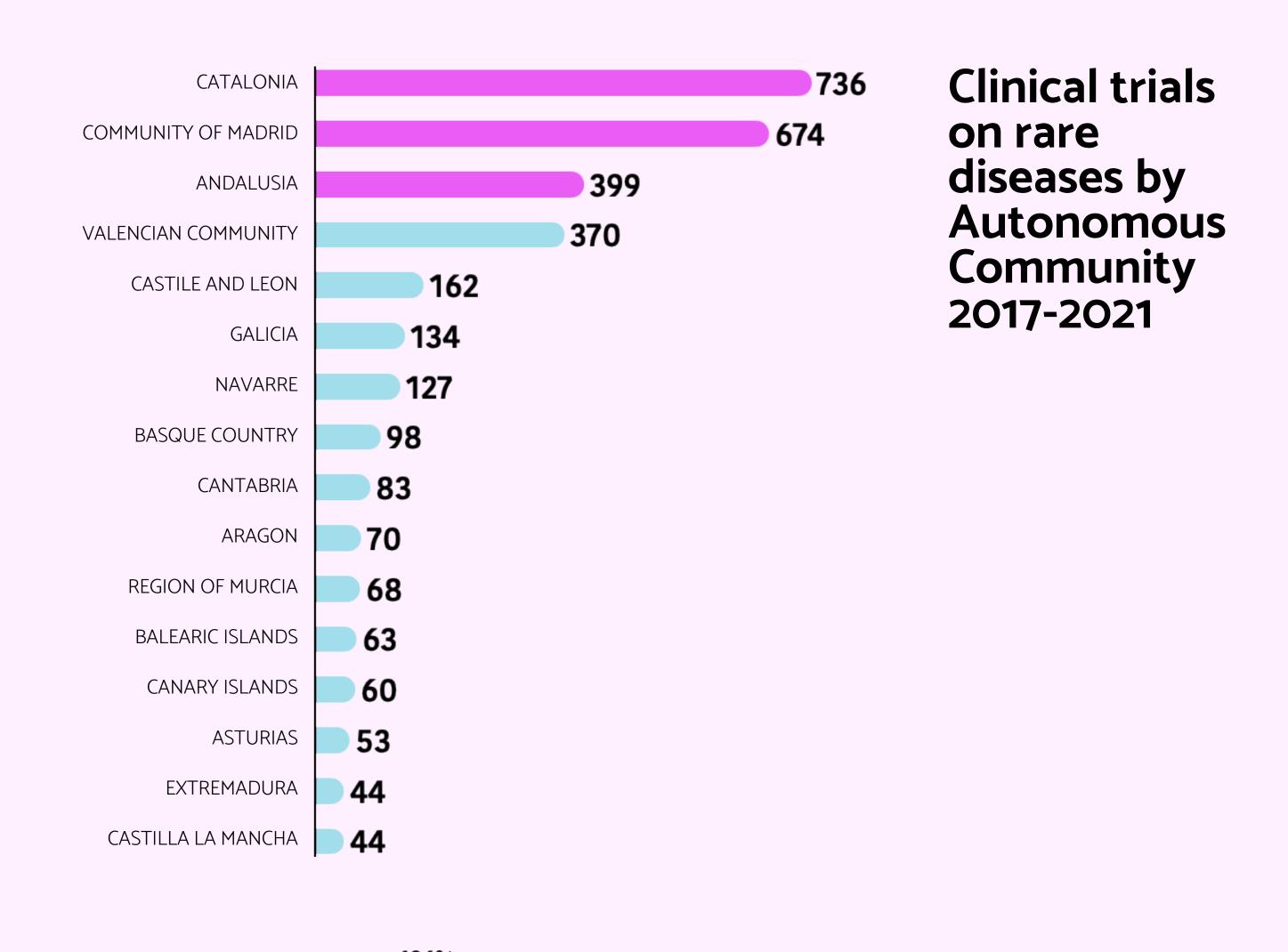


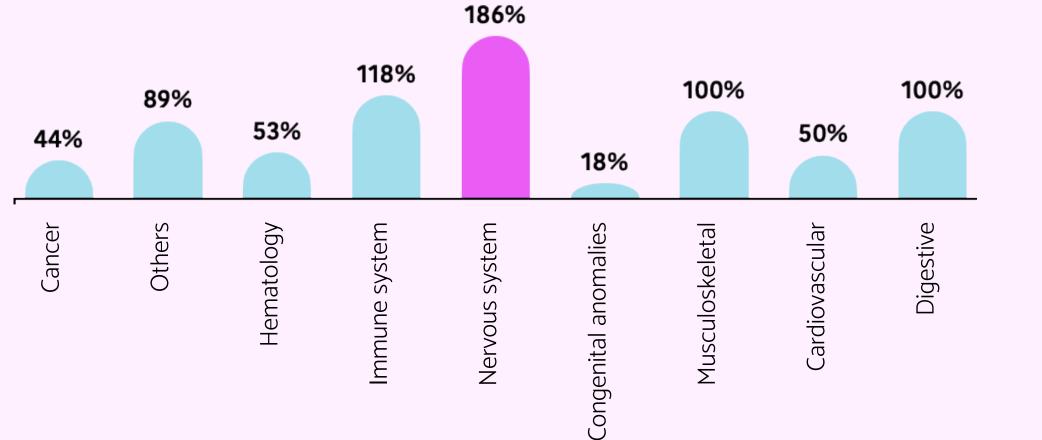
Oncology has been the leading therapeutic area, with 85 trials (38% of the total) followed by hematology, with 29 trials (13%).

CLINICAL TRIALS ON RARE DISEASES IN SPAIN









Percentage change in therapeutic areas (2017 vs. 2021)

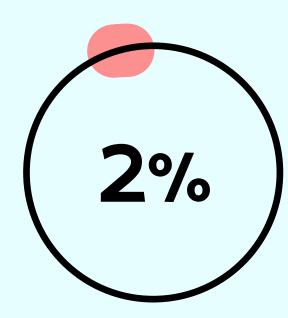
The area of research on rare diseases with the **highest growth has been nervous system diseases,** increasing from 7 trials in 2017 to 20 in the last year (186% increase).

CLINICAL TRIALS ON RARE DISEASES BY AELMHU PARTNERS ***

2021



21% increase in the number of authorized Clinical Trials compared to 2020



2% drop in the number of patients between 2021 and 2020

2017-2021



The number of clinical trials has increased by 71%.



The number of

patients grew by 84%.

*Clinical trials authorized during 2021. Source: Spanish Register of Clinical Trials (REec - AEMPS). Information analyzed by BioInnova Consulting **Most of the trials analyzed have been multicentre trials, with each individual trial being counted in several Autonomous Communities ***AELMHU partners during the year 2021



