

Improvement of finding unrelated donors - how a multinational patient registry service is bridging the gap in selecting and requesting donors for HSCT

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Background

The outcome of haematopoietic stem cell transplantation (HSCT) is influenced by many factors, including the search, selection and timely procurement of cellular products from donors.

DKMS Registry developed a multinational "search and request support programme" to simplify this process for different transplant centres (TCs). Our multinational support is designed for TCs located in countries where unrelated donor (UD) HSCT is emerging. Cooperative TCs receive access to the worldwide donor pool via DKMS Registry's Hap-E Search tool, training and hands-on support as part of the programme. From initially addressing patient needs in India, our programme has extended to Chile, South Africa, Colombia and Belarus. Here we describe the overall UD-HSCT trends in these countries between 2021 and 2023.

DKMS Group and DKMS Registry

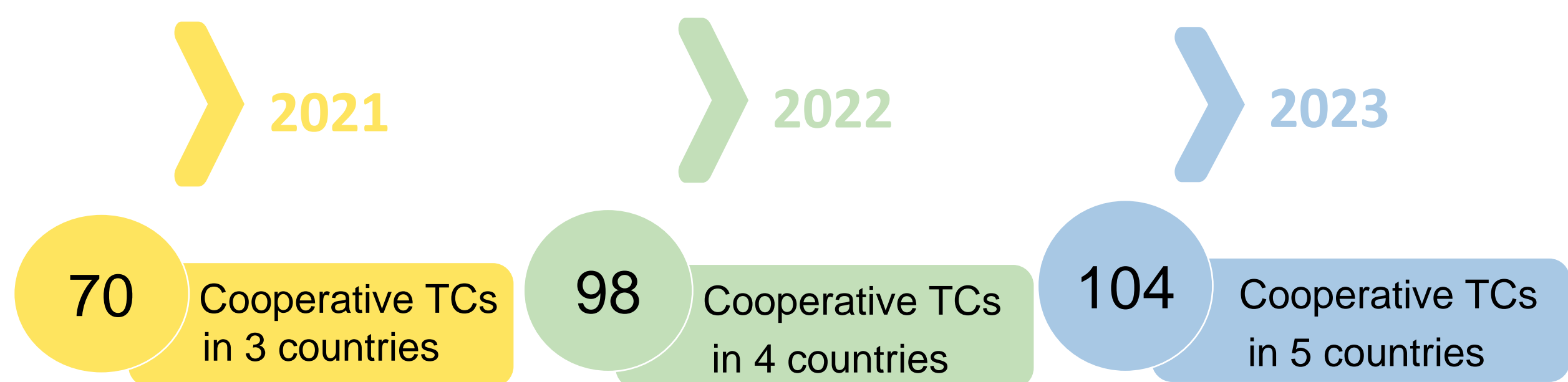
- DKMS Group is a non-profit organization, offering various services through its departments and affiliate organizations to support unrelated hematopoietic stem cell transplantation
- DKMS Registry operates as an international registry and works in close cooperation with transplant centres (TCs) and other international registries to support patients in need of unrelated stem cell products

Methods

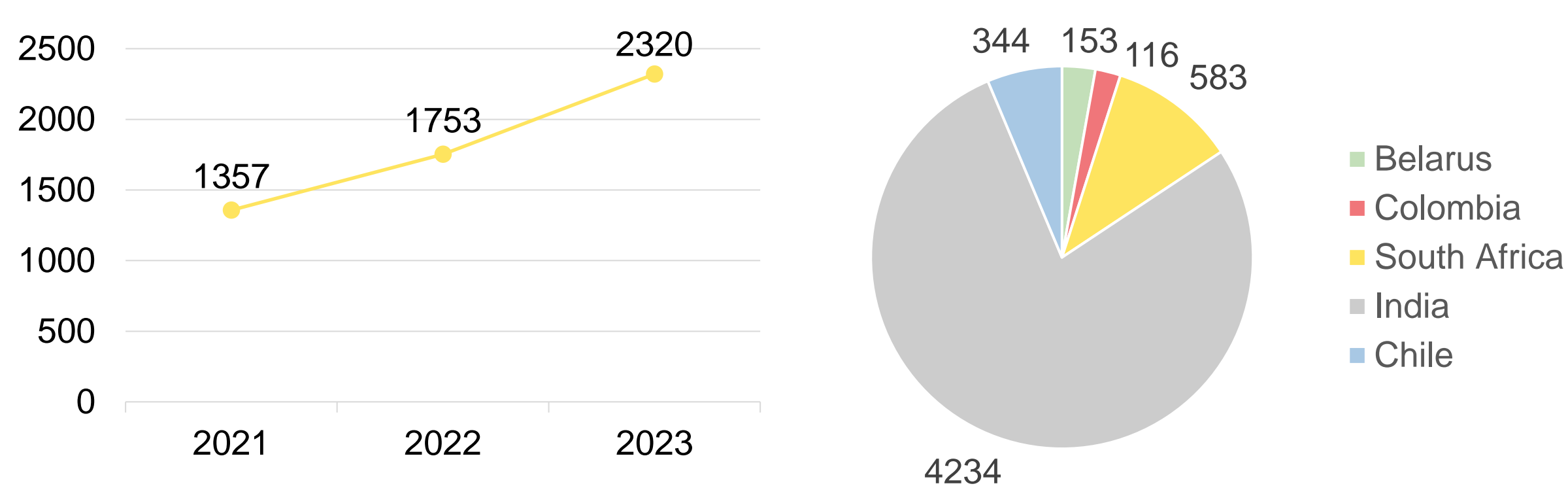
Data on adult and paediatric patient searches and requests for donors received between January 2021 and December 2023 were retrospectively analysed. Requests included pre-workup requests (health and availability check, donor verification typing) and workup requests (final product procurement). Cellular products in this study refer to those obtained from bone marrow or peripheral blood stem cell collection from 10/10, 9/10 or 8/10 matched adult donors or cord blood units (CBUs). HSCT activities were calculated by year, region and donor location.

Results

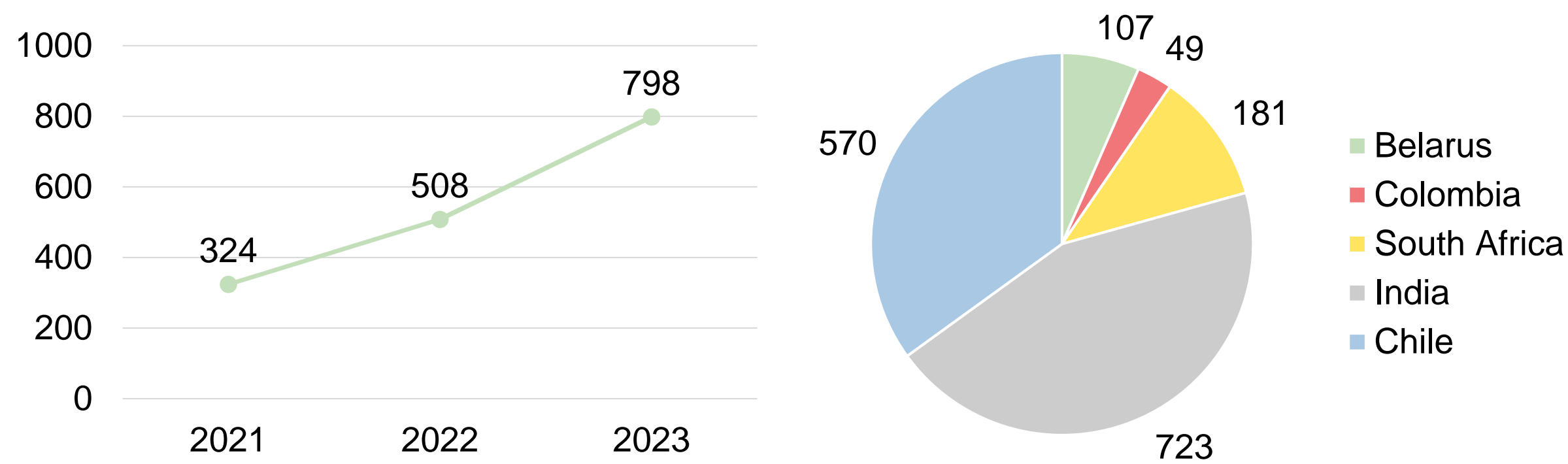
Collaboration with TCs



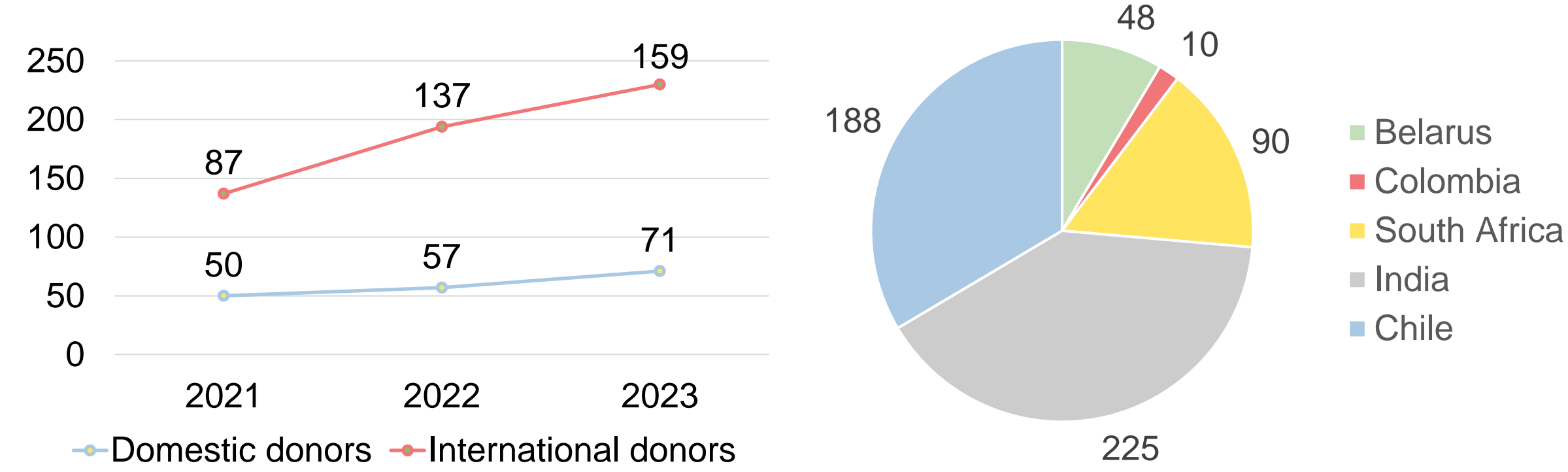
Unrelated donor searches for all cooperative TCs



Completed pre-workup requests all cooperative TCs

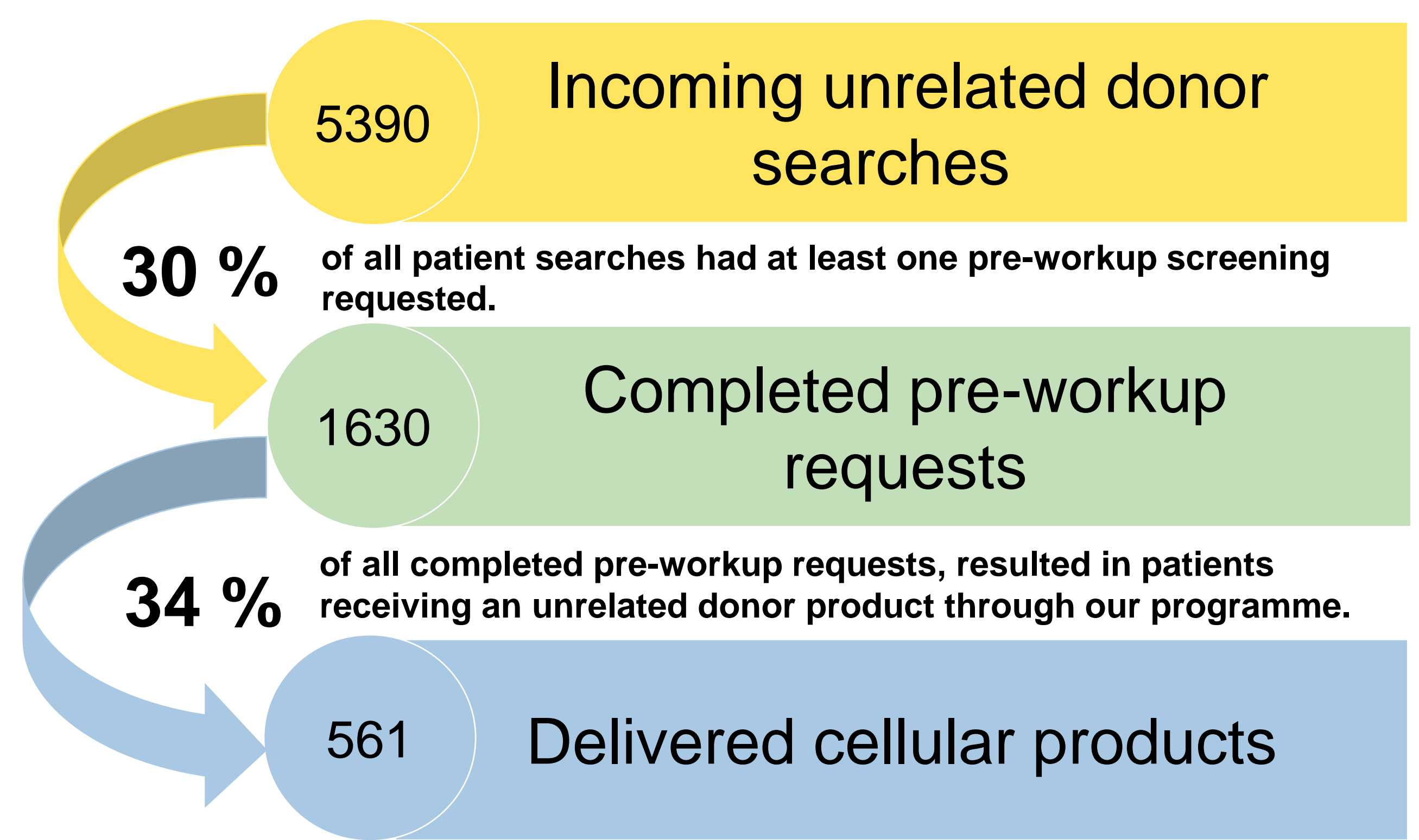


Completed workup requests all cooperative TCs

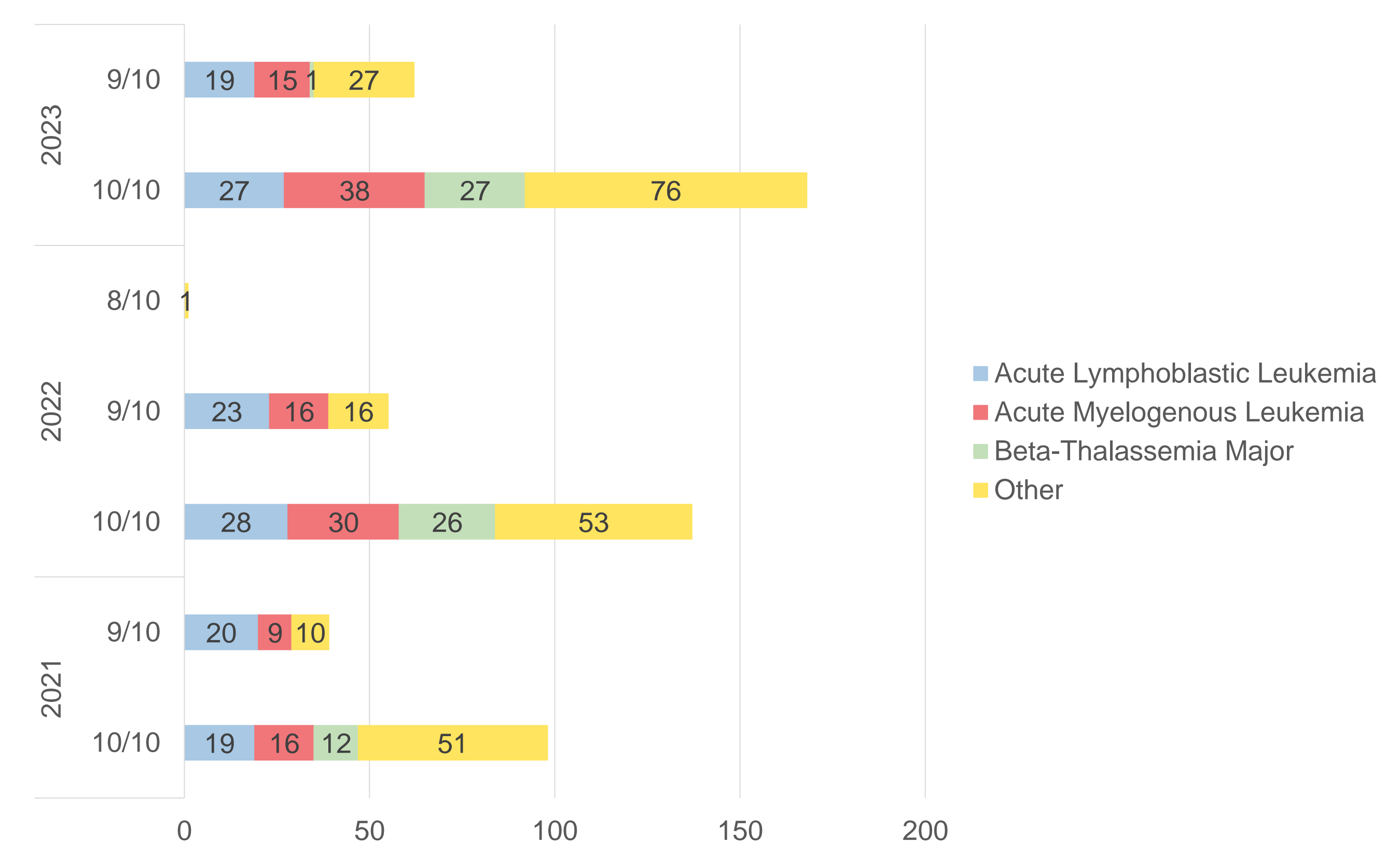


The figures above show the trend in HSCT activities. An increase in completed search (43%), pre-workup (59%) and workup requests (40%) was observed. Of the total collections mediated 35% were procured domestically and 65% imported.

Ratio of searches and completed requests



Collections by diagnosis and match grade



The figure above shows the collections from 2021 to 2023 stratified by donor-patient match grade (10/10, 9/10 and 8/10) and the three most common diagnoses. All other diagnoses are summarized under "Other". Of the 194 cellular products collected in 2022, one was a CBU, which has not been included in this figure. Altogether a strong preference for 10/10 matched donors was observed.

Conclusion

Access to transplantation remains a significant challenge for patients in many countries. The process of obtaining stem cell products from UD can pose an additional burden due to its complexity. Our service facilitates overall understanding and compliance with operational requirements to support the cooperative TCs.

Our data demonstrates a steady, albeit slow increase in the number of searches and requests received. This indicates a trend that will probably continue in the coming years, as accessibility to unrelated donors will increase.

This study highlights the importance of international collaborations and cross-border registries to address unmet patient needs.

