

# BMJ Open Factors determining development of researchers within a research network on cancer diagnosis in primary care (CanTest): an interview study

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## ABSTRACT

**Objectives** Developing connections with other researchers in a network, learning informally through these connections and using them to reach goals, is expected to increase research capacity and strengthen performance. So far, this has not been empirically demonstrated. We assessed what and how network collaboration adds to development of researchers.

**Design** Exploratory qualitative study using semistructured online interviews, analysed by inductive and deductive methods. For the deductive analysis, an existing value creation framework to study informal learning in networks was used and adjusted to our context.

**Setting** The CanTest Collaborative—an international team of primary care cancer researchers working on early detection and diagnosis of cancer.

**Participants** Sixteen primary care cancer researchers.

**Results** Connections with other researchers in an international network created diverse value cycles, where most outcomes were in the potential value cycle, acquiring knowledge, skills, social capital, resources and ideas. Not all potential value will be applied but many interviewees described realised as well as transformational value. In our context, the transformational value from the framework appeared to be related to other perspectives on the research process. Advancement of the network depends on opportunities, timing, role models and connections between different perspectives.

**Conclusions** Focus on the factors that are relevant for network advancement will support researchers in early detection and diagnosis of cancer research patients who participate in an international network and bring sustainable change in this domain. When, subsequently, researchers in the CanTest network bring about more realised and transformational learning outcomes, this will contribute to capacity development.

## INTRODUCTION

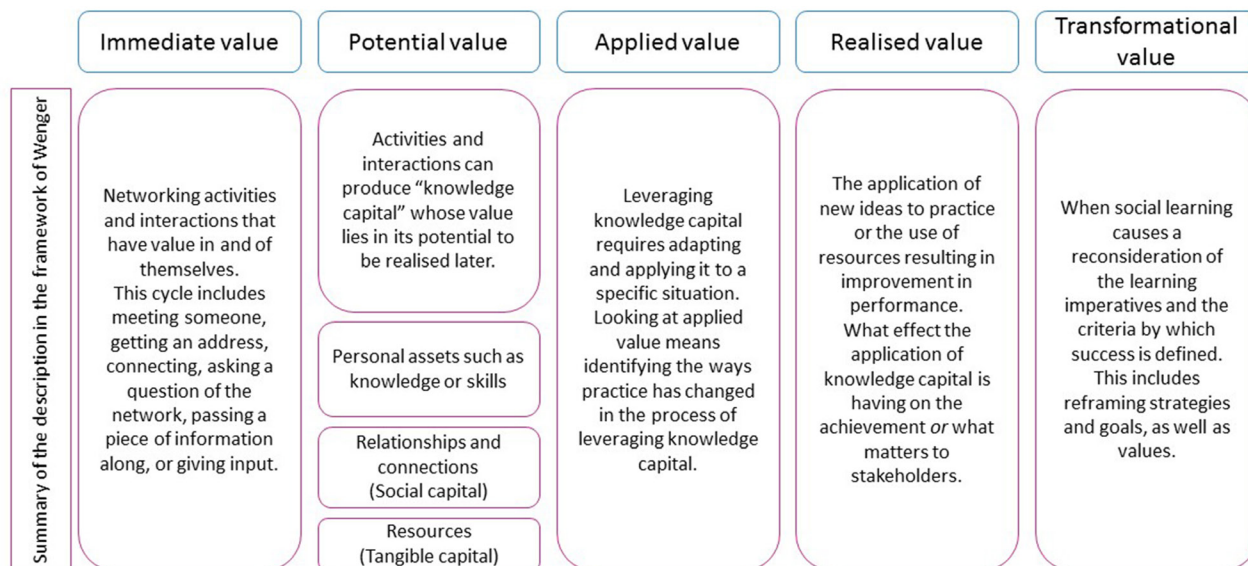
Capacity development is essential to stimulate high-quality research in healthcare that contributes to solutions for important health problems. While capacity development is a concept that has different meanings, here, it is about development of individuals via enabling new attitudes, knowledge, skills

## Strengths and limitations of this study

- The deductive part of our analysis applied and adjusted an existing framework developed specifically to study informal learning processes in networks. This leads to robust results.
- The inductive part of our analysis brings to the fore why researchers advance into subsequent cycles of value creation as shown in the deductive part.
- A qualitative analysis based on value creation stories contributes understanding of researcher's development to more quantitative studies that look at the growth in connections.
- Distinguishing regular supervisory connections from network connections was complicated.

and relationships and not about the need to increase the number of researchers in a specific research domain. Individual development of researchers leads to sustainable change in a research domain.<sup>1</sup> Traditionally, capacity development is often realised through the management of research groups<sup>2</sup> or interventions, such as formal education and training, also in the context of research skills development in networks.<sup>3</sup> At the same time, collaborative networks are recognised as a means of advancement in a research domain for individual researchers.<sup>4,5</sup> Most learning in organisations occurs in an informal way, and a greater focus on informal learning could enhance the opportunities for capacity development in collaborative networks. Thus far, the role of more informal learning within collaborative networks has received less attention in studies on networks of researchers. The literature on networked learning advocated opportunities for development of individuals who 'can enhance and critique each other's work' and 'convey tacit knowledge or knowledge of technique'.<sup>(6 p.392)</sup> Developing connections within

# Value creation framework



**Figure 1** A visualisation of—a summary of—the value creation framework as described by Wenger *et al.*<sup>6</sup>

networks provides opportunities for sharing ideas, coconstructing knowledge and exchanging experiences.<sup>6</sup> Also in the domain of cancer research, collaborative networks of researchers may provide a platform for collaborative learning. Cancer research networks have been studied previously, but with a focus on research output and translation to practice rather than concentrating on the development of the researchers.<sup>7,8</sup>

To study the process of capacity development, we used a framework of value creation cycles within networks, which prioritises value as learning, in its widest sense, over impact or monetary value. This framework, developed by Wenger *et al.*,<sup>6</sup> captures self-defined outcomes of network participation and conceptualises value creation as ‘(...) the value of learning enabled by community involvement and networking’ (p. 7). According to the framework (figure 1), learning occurs in interconnected cycles according to perceived value, ranging from immediate to potential to realised value.<sup>6</sup> However, one cycle does not necessarily lead to the next, for example, potential value may never be realised if the individual never has the opportunity to apply a newly developed skill.

Previously this value creation framework has been applied in studies on networks of educators, students and museum volunteers.<sup>9,10</sup> In this study, we apply it to explore value creation in an international research network. The CanTest Collaborative, funded by Cancer Research UK, is composed of primary care cancer researchers from the UK, Europe, the USA and Australia with clinical and/or other methodological training, working on the early detection and diagnosis of cancer.<sup>11</sup> The CanTest research focus is on identifying and evaluating novel, and refining existing, approaches for cancer detection in primary care. A second key objective of CanTest is to increase both the

capacity and sustainability of cancer detection research in primary care in the UK and internationally. It seeks to do this by (1) promoting joint research, (2) providing various training opportunities and (3) boosting academic exchange. Some activities are organised such as residential schools for researchers, but self-driven researcher-to-researcher interactions clustered around research activities are also encouraged. At the time of this study, CanTest was in year 3 of a 5-year programme.<sup>12</sup>

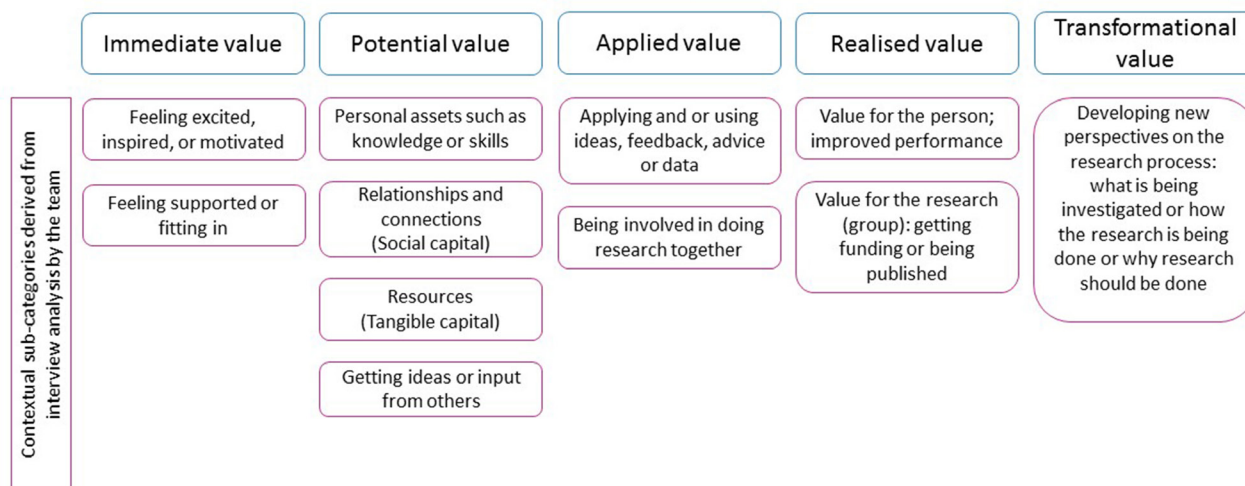
The aim of this study is to describe and evaluate how primary care cancer researchers themselves consider their development within a research network and to determine which factors facilitate or constrain researcher’s development.

## METHODS

We used semistructured, in-depth interviews to understand the perspectives and experiences of junior and mid-career primary care cancer researchers. The interview schedule was based on the value creation framework (see figure 1), and follow-up questions (Appendix 1), asking interviewees to reflect on reasons for network relationships, were formulated during the conversation. Researchers were selected for interview using principles of maximum variation sampling.<sup>13</sup> Selection was based on the following criteria ensuring a balance representative of that seen in the wider network: stage in career (early, early-mid or mid-career); contractual relationship to CanTest (directly funded, funded by other sources but affiliated); gender and country where currently working.

Interviewees were informed in writing about ethical aspects and the background of the project in advance and also verbally consented to participate in this research study at

## Adjusted value creation framework



**Figure 2** The adjusted value creation framework developed with and applied to data from the CanTest researcher network during the analysis.

the start of their interview (Appendixes 1 and 2). The usually 1-hour long interviews were performed online by an interviewer with a clinical background who works as a teacher in medical education (SSLM) and recorded. The interview questions were piloted in an interview with someone who no longer took part in the CanTest network. The transcripts of the recordings were cleaned and anonymised and the names of all researchers, locations and research institutes were removed. We adhere to a constructivist qualitative research approach where the researcher's theoretical and methodological expertise is different from the perspective of an individual participant. As a result, member checking is considered not very informative, and therefore we did not send the transcripts back to participants or ask for their feedback on the analysis.<sup>14</sup>

At the end of the data collection phase, data from the anonymised interviews were analysed using NVivo V.12, using the value creation framework in a deductive manner. In addition, we analysed in an inductive manner (ie, without a predefined theoretical framework) how these researchers connect with each other in the network. During the analysis, the existing value creation framework was adjusted to support data analysis in our context of researcher networks. Adjustments to the Wenger *et al's* framework are visualised in figure 2. We separated the immediate value cycle and the potential value cycle more explicitly. We placed 'getting ideas and input from others' under potential value as this is something that might be used in a later stage, but kept immediate value for feelings only. Another adjustment was in transformational value. The initial framework looks at how students acquire different conceptualisations of learning, as a result of taking part in the network.<sup>7</sup> In our study, participants, even though they were learning at and from the workplace, they reflected less on how their perception about learning changed. However, acquiring transformational value in a network was about developing new perspectives on the

research process. Nevertheless, the rationale of the transformation cycle in the adapted framework is still about innovation and a broadening of ideas, which is crucial for taking up leadership roles and thus for capacity development.

A set of three interviews with CanTest members (CTM) was initially analysed with thematic analysis by three researchers (VAS, DV, EdG) independently. After formulating and discussing the first version of a coding tree, another set of three interviews was analysed by the same three researchers. After further discussion, the coding tree was adapted (described above). DV and EdG then coded two sets of five interviews individually. The coding tree and descriptions for each code were discussed with the whole research team afterwards. After coding, constant comparative methodology was applied by EdG to further explore the data with cross-case comparisons and obtain an overview of the development of value. The researchers compared and contrasted the final categorisation to ensure reliability. Based on the fact that the research team observed that during the interviews remarks were becoming recurrent and the data was rich enough, we concluded that we reached saturation.<sup>14</sup> The standards for reporting qualitative research, COnsolidated criteria for REporting Qualitative research (COREQ) were applied.<sup>15</sup>

### Patient and public involvement

No patient(s) were involved in this study because we did not consider this suitable for answering the research question.

## RESULTS

### Study population

Participating researchers were predominantly female (70%), came from the UK (70%) and 50% were funded directly by CanTest. The career stage split was 40% early, 40% early-mid and 20% mid-career (see table 1).

**Table 1** Characteristics of interviewees

CTM-number	Type of involvement	Country	Gender	Career stage*
63	Funded by CanTest	UK	F	Early
64	Funded by CanTest	UK	M	Early
67	Funded by CanTest	UK	M	Early-mid
42	Funded by CanTest	UK	F	Early-mid
45	Funded by CanTest	UK	F	Early-mid
46	Funded by CanTest	UK	M	Early
58	Not funded by CanTest	UK	F	Early-mid
26	Not funded by CanTest	NL	M	Mid
36	Not funded by CanTest	NL	F	Early-mid
79	Not funded by CanTest	USA	F	Early
92	Not funded by CanTest	UK	F	Early-mid
88	Not funded by CanTest	UK	F	Early
48	Not funded by CanTest	UK	F	Mid
77	Funded by CanTest	AUS	F	Early
84	Funded by CanTest	UK	M	Early-mid
25	Not funded by CanTest	USA	F	Mid

\*Early (initial stages of PhD or pre-PhD), early-mid (later stages of PhD or early postdoc) and mid (more experienced postdoc, may be starting to supervise more junior researchers).

The results from the study are presented below starting with a summary of how researchers learn and interact within the CanTest network, moving on to report on researchers' development via value creation and concluding with information about factors facilitating or constraining researcher development.

### How researchers develop within the network

Researchers learnt in an informal manner as a result of their participation in the international network. Social learning occurred individually, for example, when a researcher hears a lecture and reflects on what they have heard by comparing and contrasting differences between research systems in various countries. Moreover, researchers learned during their social interactions: while talking with other researchers (live or using online tools) or during actual collaboration with others, for example, through giving a workshop together or cowriting a paper.

Naturally, CanTest researchers developed as a result of the activities that were formally organised, such as the residential CanTest School. The school entails an intensive few days of formal education and interaction during which knowledge and skills can be acquired in the formal sessions and during social events. Besides, relationships were built that made connecting afterwards easier. In addition, CanTest travelling fellowships enable visits to other institutions, a learning opportunity mentioned by 9 of the 16 interviewees.

I did email [researcher 16] about some questions about some of his work. And I think if I hadn't spoken to him at the CanTest school, I probably wouldn't have felt so comfortable doing that. CTM-64

### Researchers' development within CanTest via value creation

Most value creation narratives were about immediate, potential or applied value. Realised and transformational values were less prominent. The diverse cycles are presented below.

#### Immediate value

Immediate value was mostly reported as spontaneous, emotionally loaded expressions indicating excitement, inspiration and the feeling of belonging to others. Participants enjoy taking part in the network.

It inspires you, gives you more positive energy. And I think that is really useful because it's from that kind of energy and enthusiasm the ideas are generated. CTM-88

Well, they do, they do really impressive stuff with large datasets and sort of epidemiological work. And as that just appeals to me, I just think that that's something that I would like to orientate myself to in the future. CTM-67

#### Potential value

Potential value refers to the value produced by a community or a network that is not immediately applied but available to draw on later ('this might be useful one day'). Such potential value is a kind of social capital which comes in a variety of forms, including personal assets or access to relationships (figure 2). Our interviewees acquired knowledge about early detection and diagnosis of cancer and networking or presentation skills. Some referred specifically to skills required to become the next generation of senior and supervising researchers.

And having the opportunity to get involved in supervision and to kind of contribute to people's projects really solidifies that I think that you feel valued as a researcher and your skills and knowledge are valued and that you can contribute to something that's not necessarily doing primary research yourself. CTM-48

Apart from knowledge and resources, the social capital acquired in the network helps members to gain ideas for their career, for example, on life post PhD or on what kind of researcher one wants to become. Social capital is embedded in connections with more senior researchers in the network or with researchers at the same level of seniority. Thanks to social capital, researchers have the ability or the opportunity to ask questions or start collaborations because they know which researchers to ask and who to trust.

So instead of just seeing names and papers or having these kind of distant email conversations [...] Ehm, it actually made me feel that I could, that I was kind of part of it, or I potentially could be part of it and that these people were right more than just names or emails. They were people that you could interact with and bounce ideas off. CTM-88

By taking part in a network, people may also acquire or gain access to resources (also called tangible capital) such as specific pieces of information, documents and tools. In our research setting, tangible capital turned out to take the form of references to papers that escaped your attention, access to a special database or also 'a pair of hands' to get the work done.

They had come up with some papers we hadn't identified in our searches. That was useful. CTM-92

So just yeah it's interesting to see what databases are available in different countries for my health records and discussing that actually. So she was sort of showing what her data looked like compared to ours. CTM-58

### Applied value

Sometimes, especially with (early) mid-career researchers, new knowledge or access to resources at other institutions was applied by developing collaborations with other researchers. This step in the cycle of value creation is situated between potential value and realised value; outcomes such as publication in a peer-reviewed journal may have not yet become concrete but are no longer described as: 'this might be useful one day'. Applying what you have learnt, using materials you have gained access to, or getting in touch with new contacts may occur at an individual's local level. For example, knowledge obtained at the CanTest residential school can be applied back at a researcher's own institution, without actual involvement of those researchers from the network that provided the new perspective. On the other hand, applying potential value also occurs within the network, when researchers start a project or plan to apply for a grant together.

We're getting data from [institute] to look at diagnostic pathways of people who have [...] cancer. [...] It's available for us to use. CTM-79

She has contacted me recently, she said she and [researcher 6] are thinking of writing a small grant, and she asked me if I wanted to contribute and to spend a small percentage of my time, because of my lab expertise. That is something we will hopefully develop in the next months together. CTM-42

### Realised value

Realised value is about the application of new ideas or the use of resources resulting in improvement in individual or group performance. In the network of researchers in the early detection of cancer, the achievement that is sought in the end is improved patient outcomes. However, in value creation stories of researchers, realised value is on the individual level and the group level of performance. First, the category of personal development where, as a result of their interactions with others in the network, several researchers performed more confidently and competently. These changes are broader, more fundamental and sustainable than acquiring a specific skill or gaining access to certain researchers (classified under potential value). The second category of realised value is about outcomes that are not only of value for the researcher but also for the research group, for example, relationships that increase chances to have papers published or grants awarded.

I've kind of progressed so much, I feel as if I've developed quite a lot this year. [...] And that is much wider, it is much wider. And I think we need to be a bit braver in thinking about, just actually changing things. CTM-88

As a result of that together with this group we wrote an editorial for BJGP, which was accepted last week. It is my first publication as part of CanTest. And we're open to collaborate more in the future, if there's the possibility, we have this common interest. CTM-42

In a network of researchers, the connections between different cycles in the framework appeared to be different from what Wenger *et al* describe.<sup>6</sup> Especially realised value was distinctive. In the literature from the learning sciences, network members acquire skills during earlier cycles in the same network. In our work, some respondents spoke about individual or group performance improvement through applying new ideas or using resources. However, these were not acquired in the present CanTest network but from earlier collaborations and interactions outside and preceding CanTest.

### Transformational value

In the value creation stories, it became apparent that some researchers, thanks to their connections with other members of the network, not only become inspired (classified under immediate value) but also develop fundamentally different ideas about the content of research

and research collaboration. This network changed their beliefs about international collaboration and about the importance of a diversity of perspectives for good research: ‘a better appreciation for the wider view’ as one of the participants (CTM-84) put it.

Yeah and I think CanTest in particular, because it’s such a multi-institutional, multi-national kind of collaboration that you, kind of I guess that’s opened my eyes to how you can collaborate and on a large scale a kind of around the world really rather than just being, kind of, based in the one place where you are. CTM-64

### Factors that facilitate or constrain researchers’ development

In their stories about value creation, we identified three themes that might explain why researchers connect with other researchers in the network and hence advance into subsequent cycles of value creation:

1. Opportunities and timing.
2. Role models.
3. Differences versus similarities.

#### Opportunities and timing

Interviewees spoke about the difficulty of combining the development of connections and the start of collaborations with their own research process. Seven interviewees spoke about not feeling experienced enough or sufficiently advanced in their studies to (re)connect with other researchers in the network (CTM-46) and feeling unsure what connections would be most valuable for them later on. Others said that it was not the right moment because their studies were already too far advanced, which made learning new methods less useful (CTM-88). More practical reasons were related to the fact that researchers were not able to combine networking and (international) collaboration with their own research project because of time available—having other obligations in life (four interviewees) or when focussing on finishing their own research, mostly notably their PhD, was the key priority (CTM-88).

And, by that time ... all my focus was just purely on my PhD, and actually do my PhD,[...] . This is why you’ve got your fellowship and it’s the only thing that you’re able to do. CTM-88

Not yet because I’ve only started to develop my PhD concept and started doing studies so collaboration comes later. I’ve still got two and a half years left. There’s still opportunity to do it. I think perhaps for me it’s still a bit early. CTM-46

#### Role models

Within the network, role models were influential in stimulating researchers to become involved. Existing members not only give support to newcomers, set an example on how good research collaboration flourishes, but also help with building relationships with other researchers or

connecting lines of thinking in research without actually linking people.

Some of the senior faculty did a little bit on it, their most disappointing rejection of publication that kind of thing, just to show everyone has to start somewhere and work their way up. I think having a mentor and some development of your trajectory is important [...]. CTM-92

#### Differences versus similarities

Connecting (more) with other researchers in the network is also influenced by differences and similarities between individuals as well as the content of their research. With respect to the latter, the value of diverse perspectives was viewed in two ways. On the one hand, a few respondents<sup>3</sup> mentioned that participating in this network is valuable for them because of the differences in perspectives, for example, between countries. On the other hand, nine researchers emphasised that, for combining different perspectives, it is important to have common interests or a shared knowledge area.

it’s just knowing that there’s other people who are interested in the same stuff. CTM-88

People who do research totally unrelated to mine came and talked to me about my study and how important the patient perspective is, just it wasn’t the work they do. I think a lot of people saw the value in it even if it’s not specifically what they’re doing. CTM-25  
I didn’t have continuing conversation with him, because there wasn’t, our work doesn’t overlap enough and there wasn’t any real need at the time. CTM-77

because we’ve got this sort of strange ‘meeting in the middle’ situation where we’re coming from such different perspectives and well, ‘meeting in the middle’ is harder than, well, harder than I thought. I don’t know about everyone else but for me I found that. A bit challenging I guess. CTM-45

## DISCUSSION

### Principal findings

Participating in a network is expected to contribute to capacity development of individual researchers: how they develop as researchers in their chosen discipline, in this case early detection and diagnosis of cancer. Our results show that, at the initial phase of the network, CanTest researchers primarily acquire knowledge, skills and social capital. To gain advantage from social capital, connections with people and resources are essential.<sup>16</sup> The CanTest network provides researchers with these connections. The fact that not all immediate or potential value is translated into realised value and publications is not problematic, as this may be a first step to more advanced and sustainable levels of learning. Themes that might explain why researchers connect with other researchers in

the network and hence advance into subsequent cycles of value creation are opportunities and timing, role models, and differences versus similarities.

### Strengths and weaknesses of the study

The main strengths of this interdisciplinary study are: (1) to apply and use an existing framework to underpin the analysis and explore competency development through informal learning in networks. (2) The inductive part of our analysis brings to the fore why researchers advance into subsequent cycles of value creation as shown in the deductive part. (3) A qualitative analysis based on value creation stories contributes understanding of researcher's development to more quantitative studies that look at the growth in connections. A limitation of this study was that, for some interviewees, other more senior researchers in the network were their institutional supervisors. As a result, it was difficult to differentiate what they obtained additionally from the network of researchers and which opportunities they already possessed in the regular researcher-supervisor dyad within their research institute. In addition, during the interviews, we found that asking for value creation stories led to an emphasis on the positive. However, we did seek to mitigate this by adding a question to the interview schedule on whether they were dissatisfied in any way about their participation in the network. This question helped us understand, for example, how dissimilarity with others in the network may influence value creation (see differences versus similarities).

### Relation of our findings to other studies

Participation in the network in the form of actual research collaboration with others depended on the amount of time available and on competing demands from progressing or finishing researcher's own work. In earlier studies, not only has it been described that competing priorities for network members hinder collaboration<sup>17</sup> and that work/personal life is challenging for PhD completion<sup>18</sup> but also that having good international connections is an essential step in developing toward a research leader.<sup>2</sup> In our work, research collaborations were primarily taken up by (early) mid-career researchers, which accords with the purpose of the CanTest project.

From our results, as well as other studies about research networks, a few strategies come to the fore with respect to what junior researchers themselves could do to reach out more to other members of the network and what senior researchers could do to help them. In our study, mentors were valued and their openness about their own career paths particularly prized. So, senior researchers should continue to focus on mentorship while remaining sensitive to the delicate balance between guidance and fostering independence.<sup>19</sup> The design of CanTest's capacity building, combining formal and informal learning, enables early-career researchers to approach more senior researchers who they otherwise would not interact with. Interviewees also referred to inspiring interactions and

collaborations with like-minded researchers at the same level of seniority. A recent review has shown that mentoring by senior researchers and facilitation by researchers at a slightly higher level are both essential within networks that aim to support capacity development.<sup>20 21</sup>

Some interviewees reported on the value of a diversity of perspectives, lauding opportunities for worthwhile research through contrasting and comparing. In contrast, others emphasised alignment in perspectives as essential for research collaboration. Bridging different perspectives and establishing research collaboration is known to be difficult when there is heterogeneity in research approaches, as can be the case with international or interdisciplinary collaborations.<sup>22 23</sup> Junior researchers could be more aware of diverse gains from the effort to connect with dissimilar others in a network and thus develop what has been called semantic capacity which makes identifying differences valuable.<sup>24</sup> Senior researchers need to provide room for exploratory interdisciplinary interactions between junior and mid-career researchers. Also, our study has shown that learning in networks is affected by the delicate balance between ensuring sufficient overlap in research approaches while also introducing the different approaches necessary to allow innovation. Senior researchers may demonstrate example behaviour by showing how discussions with people who, at first sight have nothing in common with your own interests, can be conducted and how this can bring innovative research approaches.<sup>8</sup>

### Implications for policy-makers

We showed that value creation in a research network is a complex process, where the hard outcomes measure that most interest policy-makers only materialise later in the process. Funders should therefore recognise that investment in building research networks can substantially help to reach their mission but they are in it for the long haul.

### Future research

Our study indicates that, in this early stage of the network, the focus is primarily, but not exclusively, on the development of individual members within the network (through potential value). It is important to carry out further studies to better understand how well the other value creation cycles are achieved because the final two cycles, realised and transformational value, are anticipated to be key for capacity development into research leaders. In addition, the value creation literature emphasises that, when studying networks, there should be a focus on whether the network brings value for individual member(s) or for the network as a whole.<sup>9</sup> Likewise, the literature about capacity development<sup>117</sup> recommends that the macrolevel, mesolevel and microlevel of the research system should also be considered. As such, future research should also look into capacity development from a system's perspective. For the design of formal activities and studies thereof in the future, the literature on interdisciplinary collaboration deserves attention, where strategies for handling



differences between disciplines were described.<sup>22 23</sup> The interviews were completed shortly before the COVID-19 lockdown and the impact of the pandemic on the network will be explored in future work.

## CONCLUSION

Researchers within an international network focused on early detection and diagnosis of cancer, learn and develop by making connections and interacting with others in the network. In our study, we have adjusted a framework used to study learning in networks to the context of a network of international researchers. In time, the researchers in the CanTest network will acquire more realised and transformational values, both of which are essential for capacity development. Advancement of the network depends on opportunities, timing, role models and connections between different perspectives. Focus on those factors supports researchers to establish themselves and go on to reach independence in early detection and diagnosis of cancer research, which brings sustainable change in this domain.

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**Collaborators** NA.

**Contributors** EdG, DV, VAS, SSLM, FMW, GR and NJdW led the conceptualisation and design of the study. SSLM performed the interviews. EdG, DV and VAS carried out the analysis. FMW, GR and NJdW contributed to interpretation of the analysis. EdG wrote the paper with DV and VAS. Authors SSLM, FMW, GR and NJdW reviewed and commented on the manuscript and have approved the final version. EdG acts as the guarantor.

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**Patient consent for publication** Not applicable.

**Ethics approval** This study involves human participants but ethical approval for this not medical/scientific research was not mandatory as per Dutch guidelines, but the authors did the following to address any ethical concerns: they sent each participant an information sheet before the study started, which included the option to stop before the end of the study without giving a reason. The authors asked for their consent at the start of each interview, each participant was asked for informed consent in writing, all transcripts were anonymised. All of this is in line with the Declaration of Helsinki. This approach is also similar to what is recommended by the ethical review board of the Dutch Organisation for Medical Education Research (ERB-NVMO). This research was not submitted to that review board however, because the study does not fall within its domain. As the study was not medical/scientific research, the medical review board approval was also not applicable. That review board only gives an assessment on medical/scientific studies.

**Provenance and peer review** Not commissioned; externally peer reviewed.

**Data availability statement** Data sharing not applicable as no datasets were generated and/or analysed for this study. Data are available upon reasonable request. The transcripts of the interviews analysed during the current study are available from the corresponding author on reasonable request.

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