

Research - LED Design

00:00:02:23	IMPROVING THE QUALITY OF LATER LIFE THROUGH RESEARCH-LED PRODUCT AND SERVICE DEVELOPMENT
00:00:06:10	<p>DR GORDON BRUCE:</p> <p>Hello, and welcome to this conversation which is one of a series of recordings that we will be releasing as part of the 2023 annual lectures. The focus of this session is on improving the quality of later life through research-led product and service development.</p>
00:00:21:02	<p>My name is Gordon Bruce and I am one of the Grants Manager at the Dunhill Medical Trust. And today I have the pleasure of introducing Dr Rachel Carey who is chief scientist at Zinc, a venture builder and accelerator and where she works with start-up founders and academics to create new scalable innovations to tackle important societal challenges.</p>
00:00:41:06	<p>Improving quality of later life is one of Zinc's full mission areas and the DMT have supported their work in producing a report on building ventures in this space. And we will see the report with this recording.</p>
00:00:54:18	<p>More recently we became an investor in the Zinc 2 Fund which will back the development of new businesses, focused on improving the quality of later life as well as in Zinc's other missionaries.</p>
00:01:05:08	<p>And so I am really looking forward to hearing insights in some of the challenges and successes in this area. So without further preamble I will hand over to Rachel.</p>
00:01:14:16	<p>DR RACHEL CAREY:</p> <p>Thank you so much, Gordon. It's lovely to be here and hi, everyone. Thank you very much to the team at Dunhill Medical Trust for having me. As Gordon said, I'm Rachel Carey, I'm Chief Scientist at Zinc and really pleased to be able to share some of our work to improve the quality of later life through research-led product and service development. So I will give a bit of background on Zinc just to set the context.</p>

00:01:38:06	<p>DR RACHEL CAREY (Cont):</p> <p>I will talk a bit about why we chose later life as one of our key focus areas; some of what we have learned from having worked a little bit now in that space, and then I will also talk about our work to apply in advance research and science through new venture development.</p>
00:01:56:16	<p>So just a little bit of context for those of you have not come across us. We are here to enable diverse cohorts of talented individuals to experiment their way to impact at scale on the most pressing problems within our missions. So that is a bit of a mouthful. But we are basically here to help individuals to have more impact on problems they care about. And we are particularly interested in problems within these four mission areas on screen.</p>
00:02:24:14	<p>So -- Improving mental and emotional health;</p> <p>Unlocking new opportunities around the future of work including improving financial resilience</p> <p>Improving the quality of later life and</p> <p>Reducing environmental harms.</p>
00:02:37:17	<p>So later life is one of the four overarching missions we are focused on, but it has also come up as a really central theme in some of these other missions as well, as you will not be surprised to hear there is lots of potential synergy and positive spill- over across these mission areas.</p>
00:02:56:12	<p>Our particular approach is on science rich commercial innovation, and we are particularly interested in innovations that have the potential for scale. So innovations will have the potential to get to a huge scale of impact. And that is, that is what we have been doing over the last few years and I will give a couple of examples now of the programs we have run.</p>
00:03:18:09	<p>So our Venture-builder we launched in 2017. Through these platforms we bring together cohorts of up to 70 individuals. They join us full time for six months and through our program they find one or two co-founders, explore problems to solve and develop a new product or service from scratch.</p>

00:03:41:16	<p>DR RACHEL CAREY (Cont):</p> <p>So they come to us as individuals, pre-team, pre-idea, pre-business, and we support them to help to build a team and develop a new innovation. Importantly, there is a common mission at the starting point for each of these programs. So we are just coming to the end, for example, of our program focused on reducing environmental harms. And we ran our first venture-builder on later life back in 2017. So we bring together these broad range of individuals, they are typically mid-career from a very broad range of backgrounds and skills.</p>
00:04:20:04	<p>So they might be from technology or from business, from academia, from policy, from charities, from creative industries, but they are all united by this passion for the particular mission area that we have, we have flagged. And for some of the ventures that get built through our programs we will invest through, as Gordon mentioned, the Zinc-2 Fund, and those ventures will progress to a second six month program and support which help them to get a bit further along and ultimately make progress towards product development and business growth.</p>
00:04:57:11	<p>Separately to that, then we also run a healthy Ageing Catalyst program in collaboration with UKRI. So through this program we support 80 academic teams to translate their research into scalable products and services. So helping teams of researchers in UK research institutions to develop innovations that can survive beyond the end of a particular grant period, so innovations that have the potential for sustainability and scale. And this is all exclusively focused on Healthy Ageing through UKRI's Healthy Ageing challenge.</p>
00:05:35:21	<p>And we are excited that we have also just recently launched a new accelerator program, again in collaboration with UKRI for 10 of those innovations that came through the original catalyst program. So I will give some examples shortly of what has come through that, but we have been running that in parallel with our venture builder and that has been also exclusively focused on healthy ageing.</p>
00:06:03:03	<p>So I am conscious that it probably feels a bit redundant to talk about why improving the quality of later life is important in this context with this audience, but maybe just to briefly highlight what brought us into this space.</p>

<p>00:06:16:22</p>	<p>DR RACHEL CAREY (Cont):</p> <p>We were particularly interested in improve quality of life in later life, so helping to make sure that we can maintain good quality of life as we age. And it was, you know, really salient to us that despite this being what many entrepreneurs and investors would consider a large and growing market, there is a really remarkable lack of well-designed, effective products and services, lots of needs not being met, and there is lots of opportunities there for, for innovation.</p>
<p>00:06:50:20</p>	<p>Both innovations that are tailored to people in later life but potentially relevant across the life span, so physically activity innovation, for example, but also innovations that are more specific to age-related experience. So dementia diagnosis innovations, for example.</p>
<p>00:07:11:01</p>	<p>And when we put out these missions to attract entrepreneurs, we usually try and choose a mission and a framing that will resonate with people and clearly this is a mission that is relevant to all of us. So that was really important to us as well and certainly from the people we'd seen come through and be ... those interested in this space, it has been a really kind of strong salient starting point for entrepreneurs and researchers.</p>
<p>00:07:40:02</p>	<p>So I am just going to share a bit about how we approach this mission and some of our learning. I wanted to highlight also a couple of examples of our ventures both from the venture builder and from the catalyst program. I spoke to some of our later life ventures in the run up to this talk just to ask for some of their reflections, so I have included a couple of quotes in the next few slides of what they have said as well.</p>
<p>00:08:08:10</p>	<p>When we kick off a new mission, the first thing we do is publish a manifesto which lays out some of the opportunities we see for innovation within that space. And this is the product of a bunch of research and expert consultation that we do. So in this we highlight neglected area for innovations. So we will have spoken to lots of people to ask, you know, what are the areas that perhaps people are not looking at enough or there is not enough good solutions in.</p>

00:08:40:00	<p>DR RACHEL CAREY (Cont):</p> <p>And in this case, you know, folks highlighted health issues and areas that were neglected including things like oral care, (CUTS) health, incontinence, arthritis, hydration, visual and hearing impediment, as well as things like financial services, for example.</p>
00:08:58:19	<p>We were also really keen to go beyond the presenting problem and identify the causes behind the causes. So linking back to what Sue mentioned in the kick off session about the social determinants of health, thinking from a sort of biopsychosocial approach what some of the issues are and what is driving them. So for example, if loneliness is the presenting issue, in some cases it might be that there's a health condition underpinning that which is leading to social isolation and therefore loneliness. So there is different possible points of intervention. So it is important for us to kind of dig into that as deeply as we could.</p>
00:09:37:03	<p>And in general we are sector-agnostic in terms of whether the product that comes out the other side is health tech or fintech or proptech or anything else. So we are completely problem led in our approach.</p>
00:09:52:18	<p>Just to highlight a couple of our reflections on having approached this a few years ago. So again, this will not be surprising to anyone on the call, but there is really important need to recognise the diverse range of needs and goals and problems and opportunities that exist within this space. So to recognise the heterogeneity. You know, given that later life can span a period of several decades, it seems strange that we do often tend to homogenise these groups. So we were really keen to avoid generalisations, stereotypes, misperceptions and capture the diverse range of challenges and opportunities.</p>
00:10:34:20	<p>And many of our ventures reflected this back to us as well including, for example, highlighting this issue around a perception that people in later life do not want to engage with technology. So many more examples like that of where going and engaging with people directly, having a user centre, data driven approach is critical and not relying on our assumptions or pre-existing perceptions.</p>

00:11:03:12	DR RACHEL CAREY (Cont): We were really struck by the strength and nature of the existing healthy ageing ecosystem spanning across universities, charities, community groups, corporates, investors, and we have met some amazing partners along the way, not least the Dunhill Medical Trust who have been an incredible partner to us over the last few years. And many of our ventures have recognised this as well, the importance of plugging in to these existing networks and ecosystems and how much further that can take you, rather than sort of starting from scratch.
00:11:38:06	We are all, you know, these are complex enough issues that no one organisation is going to solve them on their own. So one of our ventures, for example, mentions that changing the narrative around ageing is what connects all of the Zinc ventures and in general that big ecosystem that we are part of is capable of taking on that big challenge. So I think there is something here about the nature of this ecosystem spanning sectors and disciplines around this common goal.
00:12:09:18	And lastly then, I think we heard a lot as we spoke to people and also as our ventures began to experiment in this space, we heard a lot about narratives, marketing, outreach, engagement approaches, design, and the ways in which this needs to be, again, user centred, data driven tailored. So creating narratives that are aspirational, positive and optimistic, while not ignoring or obscuring you know, the fact that many people are experiencing really sharp problems and have sharp needs.
00:12:44:03	The need, as with all products and services, for intuitive and attractive design and user experience. And then this challenge around getting the kind of outreach engagement marketing strategies right. So we heard a lot from people that, you know, the minute you market something as being explicitly for older adults, it becomes instantly unappealing to older adults. So having to think carefully about language and narratives. And I was struck by this article in the Atlantic a few weeks ago on the discrepancy between how old we are and how old we think we are as an example of this.

00:13:20:05	DR RACHEL CAREY (Cont): So we heard a lot about this and I think our ventures have all explored in different ways language and engagement approaches that have worked for their particular populations and context and problem areas.
00:13:38:04	So we like to be able to share our learning about these missions. We are not always in a position to do that as much as we would like to. But in this case we had support from the Dunhill Medical Trust to put together a short report to summarise our learning about later life innovation which is on our website. And I think, you know, there is something in general about capturing the learning from early stage start-ups who are experimenting, most of whom will not go on to succeed in the way that they are wanting to, but all of whom generate useful, valuable learning that we could be drawing on as we all progress towards these common goals.
00:14:17:15	So as much as we can, we try and share our learning and encourage others to do the same and we have got some of those resources on our website.
00:14:28:14	So just to give a few examples of what has come out from these various programs. This is not a comprehensive list, just a few brief examples. So from the Venture-builder, a venture called Tonus who are developing a soft robotics technology embedded into garments that mime human muscle and reduce the strain on joints, helping people to stay active for longer.
00:14:54:22	Vira, digital therapeutics platform supporting long term health for women starting with menopause.
00:15:01:22	Bellevie, looking to reinvent the future of care work, prioritising the wellbeing of the worker with the knowledge that that will lead to better quality care.
00:15:12:07	Eargym, looking to tackle age-related hearing loss through education training and testing.
00:15:19:21	And mobilise, looking to support informal carers who care for a loved one.
00:15:26:10	Then through catalyst, so Eyecatcher is a new vision home monitoring device for people with glaucoma.

00:15:34:07	Squiboon is a platform to tackle loneliness among older adults looking to facilitate face-to-face (in actions), community participation, skills sharing, etc.
00:15:44:22	DR RACHEL CAREY (Cont): Myosock is developing a low cost method of measuring muscle health and they are working in collaboration with a company called Conductive Transfers.
00:15:54:22	And then Strong In Midlife is a new physical activity intervention for women in midlife and they are working in collaboration with Westfield Health.
00:16:04:25	So I think what is kind of interesting about this is the breath of problem areas covered populations focused on having one sort of common starting point, thinking about the breath of opportunities and challenges that exist within this space, and those are just some of the examples.
00:16:23:20	What I wanted to do for the last few minutes was talk through how we have been approaching science and research in our venture-builder program and beyond, and particularly how we want to apply an advance research through new product development.
00:16:41:19	So since we got started back in 2017, we have been banging this drum about the extent to which start-ups are fertile ground for science and research, the extent to which they are inherently multidisciplinary environments where researchers can contribute, translate their skills add value and also gain interesting experience.
00:17:06:02	And we believe really strongly that having a research-led approach from the outside can accelerate ventures' progress. So it can help them to make the most of existing evidence to make sure they are starting as far up the learning curve as possible. It can make sure that their own research and experimentation is maximumly valuable and relevant to them. And it can also make sure that that learning is getting translated into actionable insights for their product development, and that they are able to share some of that learning with the wider, in this case, healthy ageing ecosystem which in some cases for our ventures has led to new interest in partnerships.

00:17:47:22	One of our reflections is that key to all of this is researchers themselves embedded within ventures. So we have just come to the end of a program funded by the Economic and Social Research Council looking at the nature of social and behavioural science in start-ups.
00:18:07:20	DR RACHEL CAREY (Cont): We have interviewed a bunch of people with social and behavioural science PhDs, now working in start-ups as chief product officers, clinical research directors, user experience researchers, etc, to get an understanding of their roles and the challenges and opportunities that come with them.
00:18:26:13	And they have spoken a lot about the opportunities for impact. So the fact that they can see how their research day-to-day is having an impact on the product and on the ventures' direction, how they can really see meaningfully the direction of travel of the venture being changed based on some of the research they have done.
00:18:45:19	And then the salient point about us needing to stop talking about non-academic career paths as non-traditional alternative career paths, and start thinking about them as a sort of equally important valid and viable route for scientists and researchers.
00:19:03:02	So we think there is a huge opportunity here to support researchers and scientists working in these settings, and it is at the moment quite a fragmented, not visible ecosystem across the venture landscape. So we think there is a big opportunity to formalise, connect and grow the science base and ventures, and a starting point for that would be to better support, connect and make visible these venture scientists and researchers.
00:19:32:22	So we are committed to working more in this agenda and we will be ... hopefully have something more concrete to share in the next few months on that front.

00:19:43:16	So a few things coming up. We have got a new venture-builder on financial resilience in midlife starting in a few weeks. We are kicking off a venture-builder in October on healthy environments, looking at the intersection of health and our physical environment. And then we will have another venture-builder on later life likely starting early 2024.
00:20:05:11	We are continuing to lead the Catalyst program starting Catalyst 4 pretty soon and also as I mentioned, now launching the Catalyst Accelerator program.
00:20:15:07	DR RACHEL CAREY (Cont): And then we are progressing this venture science agenda, and in the first instance, one thing we have planned is supporting Health & Care Innovation Fellowships for postdoctoral researchers. So lots of opportunities I think to connect with others around some of these initiatives we are launching.
00:20:36:03	I realise that was a bit of whistle-stop tour but hopefully gives a sense of some of our work and learning in this space, and some of the opportunities we see for research and innovation in healthy ageing.
00:20:48:17	So thank you so much and if anyone would like to connect on any of these, please do feel free to reach out.
00:20:58:23	(END OF RECORDING)