novo nordisk fonden

DIALOGUE REPORT FOR 2019

Danish Diabetes Academy

Danish Diabetes Academy

Table of contents

1 General Notes

This report has been produced using selected data collected through the researchfish® platform, which was introduced at the Danish Diabetes Academy (DDA). The staff members of DDA have made great efforts to report data to the system. This analysis was commissioned at short notice, right after the data was collected in researchfish®. The report should therefore not be considered final, since some data need additional coding and are subject to future changes. The report should moreover be read with the following reservations:

The analysis was conducted on the Novo Nordisk Foundation grant to the DDA, plus additional projects and grants identified as being associated with the DDA, and part of the January 2020 data submission period with the DDA. However, since subjects of interest in this report takes time to develop and manifest, some activities are likely to be funded from earlier sources. Not all of the awards associated with the DDA submitted their outcomes so this report is based on "live" data.

The percentages in this report are rounded up or down to the nearest whole number; some may appear as 0% for numbers less than half of one percent and some tables may not add up to 100% because of rounding. The tables that do not add up to 100% are marked with a star (*).

The outputs are de-duplicated, to the extent possible, in analysis on the type of outputs generated (such as publications per year and top five locations for collaborations). De-duplication is usually done using system-generated codes. Supplementary information is used to de-duplicate where available, such as PubMed IDs or digital object identifiers (DOIs) for publications. For further funding, the details of duration and amount of money are also used.

Each chapter is introduced by presenting the guidance information that is available to the user in the researchfish® platform for each of the outcome types.

If you have any questions, comments or suggestions on any aspect of this report, please contact Gert V. Balling at GVB@novo.dk.

2 Publications

Included in this section:
All research-related publications that were published or accepted.

Primary investigators reported publications attributed to the DDA grant and earlier funding.

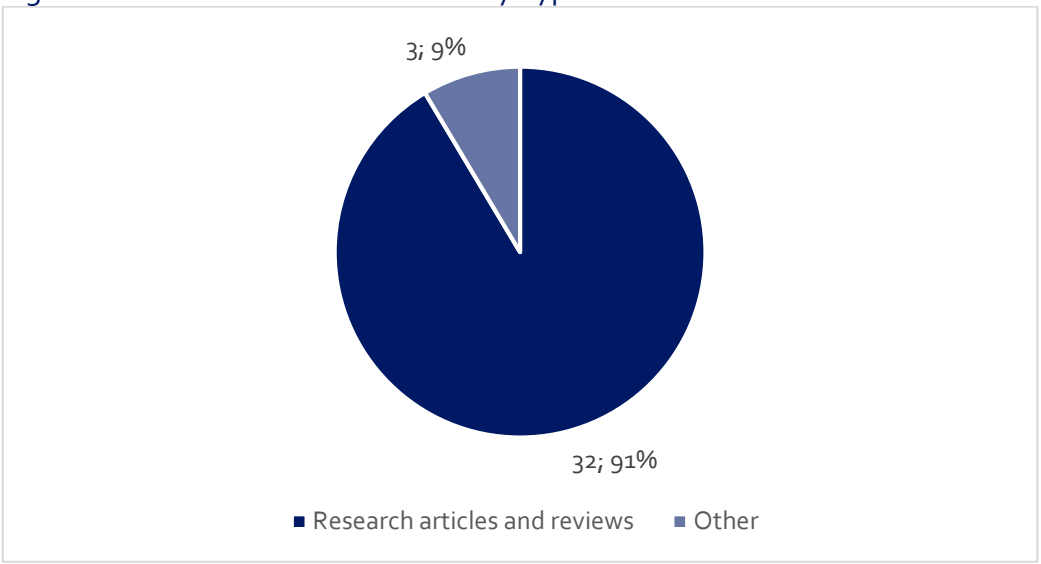
Table 2.1: Publications

Total number of publications reported by the group	41
Unique number of publications reported by the group	35

Publications take time to produce, and recent grants are naturally less likely to have produced a publication. Since the DDA grant is very recent, this analysis omits the time to produce the first publication and the time distribution of publication activity.

The publication activity for DDA can also be categorized by the type of publication. The number of unique DDA publications the type of publication are shown in Figure 2.1.

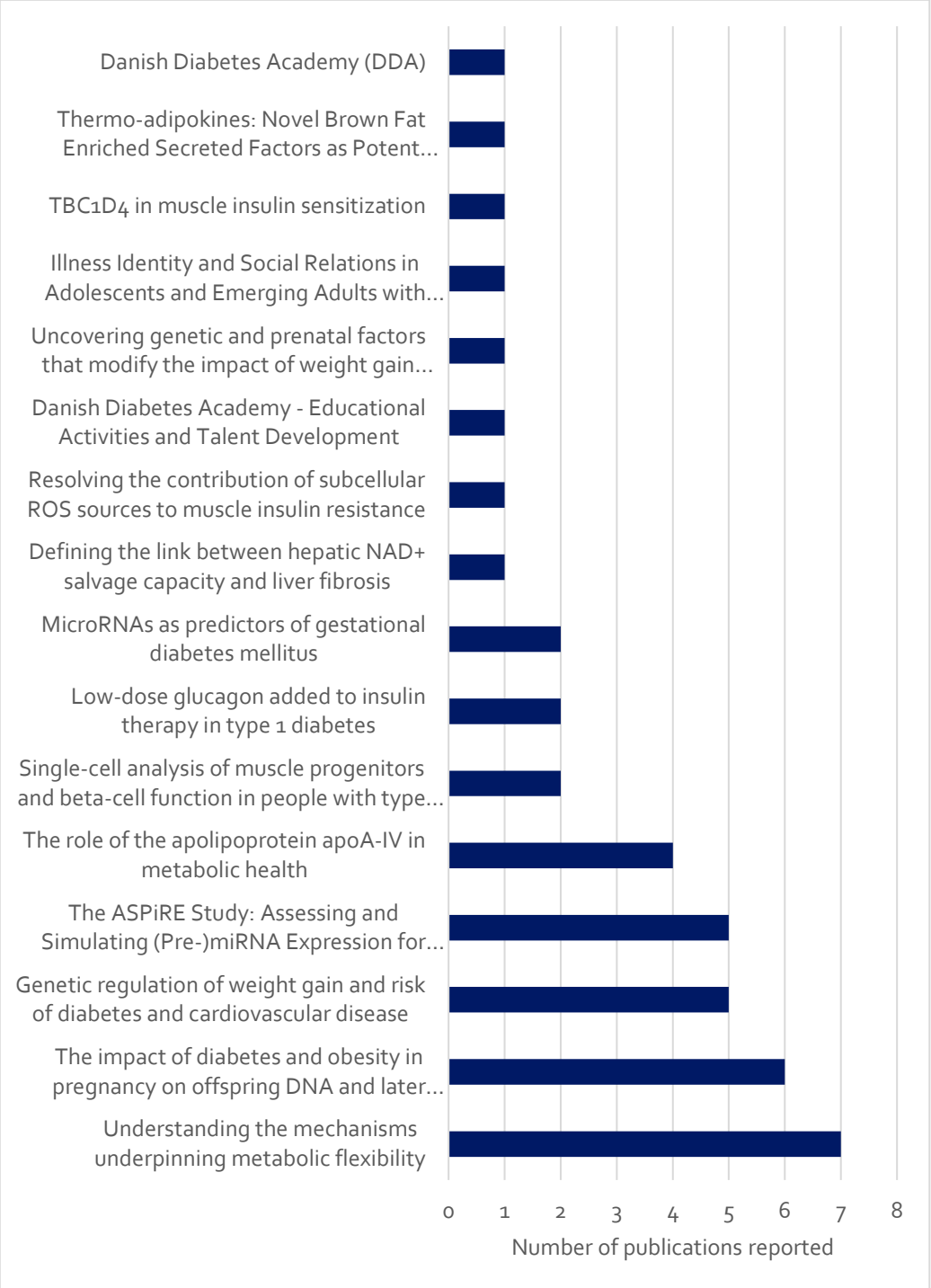
Figure 2.1: DDA-funded Publications by Type



Note: 'Other' includes book chapters, letters, editorial comments etc.

Figure 2.2 summarises the number of publications reported by each award with publications.

Figure 2.2: DDA-funded Publications by Reporting Award



3 Collaborations

Included in this section:

- *Bi-lateral or multi-lateral partnerships that have resulted from or are directly linked to this grant*
- *Participation (by you or a member of your research team) as a result of the grant in a network, consortium, multi-centre study or other initiative.*

Collaborations play an increasingly important part in research, enabling the leveraging of insights and expertise from around the globe. Primary investigators reported 66 active collaborations. Table 3.1 shows the basic summary of collaborations for DDA.

Table 3.1: Collaborations

Total number of collaborations reported by the group	66
Unique number of collaborations reported by the group	66

Collaborations take time to produce, and recent grants are naturally less likely to have produced a collaboration. This analysis omits the time to report the first collaboration and the time distribution of collaboration activity.

Primary investigators were asked to report on their collaboration partners. These responses were then coded for the country and sector (public, private, etc.) of the collaborator to enable analysis of the number of international DDA collaborations and with whom they interacted most frequently. Table 3.2 shows the location of DDA collaborations by continent (Denmark is listed separately). The frequency is of collaborations, not collaborators, so if three DDA researchers indicated that they collaborated with the same partner in North America, that would be counted three times. If the collaboration was with a large multinational corporation or organisation (for example, the United Nations), this was coded as being global. If there was insufficient information to code, this was noted, and the researchers will be asked to supply additional information in the future. At the time of production of this report not all of the collaboration locations had been fully mapped with 64 mapped locations at the country level and sector level and these are used for the geographical/sector analysis.

Table 3.3 presents collaboration data analysed at the country level for DDA. Figure 3.1 is a map displaying the non-European collaborators of DDA. Figure 3.2 displays the European collaborators of DDA. Each map has several circles and each circle's size represents the number of collaborations reported for each country.

Table 3.2 Locations of collaborators

Location of collaborators	Number of collaborations	Percentage of total
Denmark	36	56%
Europe (excluding Denmark)	16	25%
North America	7	11%
South America	0	0%
Asia	3	5%
Africa	0	0%
Oceania	2	3%
Global	0	0%
Unknown	0	0%
Total	64	100%

Table 3.3 Top five locations for collaborators

Country	Number of collaborations	Percentage of all collaborations
Denmark	36	56%
United Kingdom	2	3%
United States	6	9%
Australia	2	3%
Germany	3	5%
Other	15	23%

Figure 3.1 Non-European collaborators by location

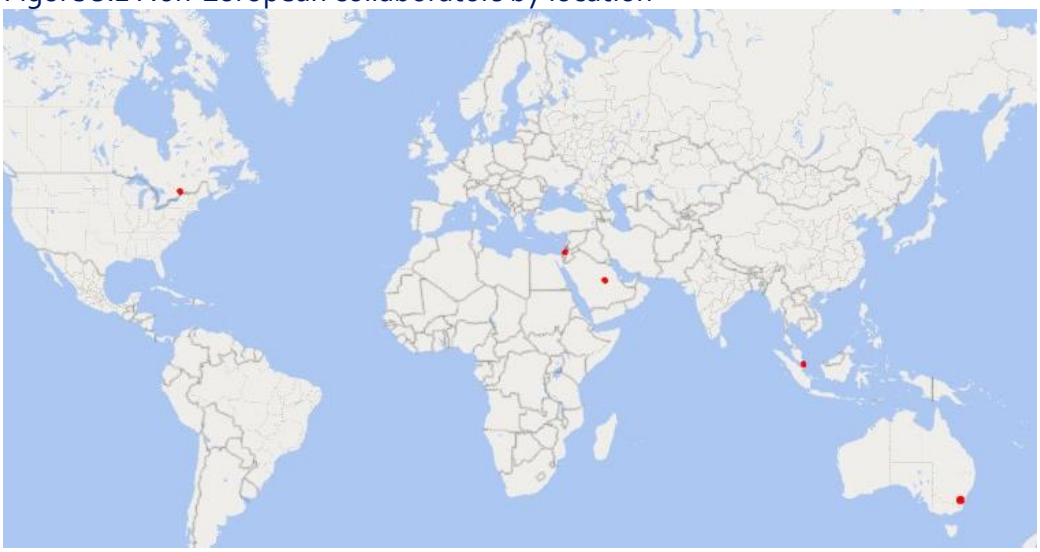
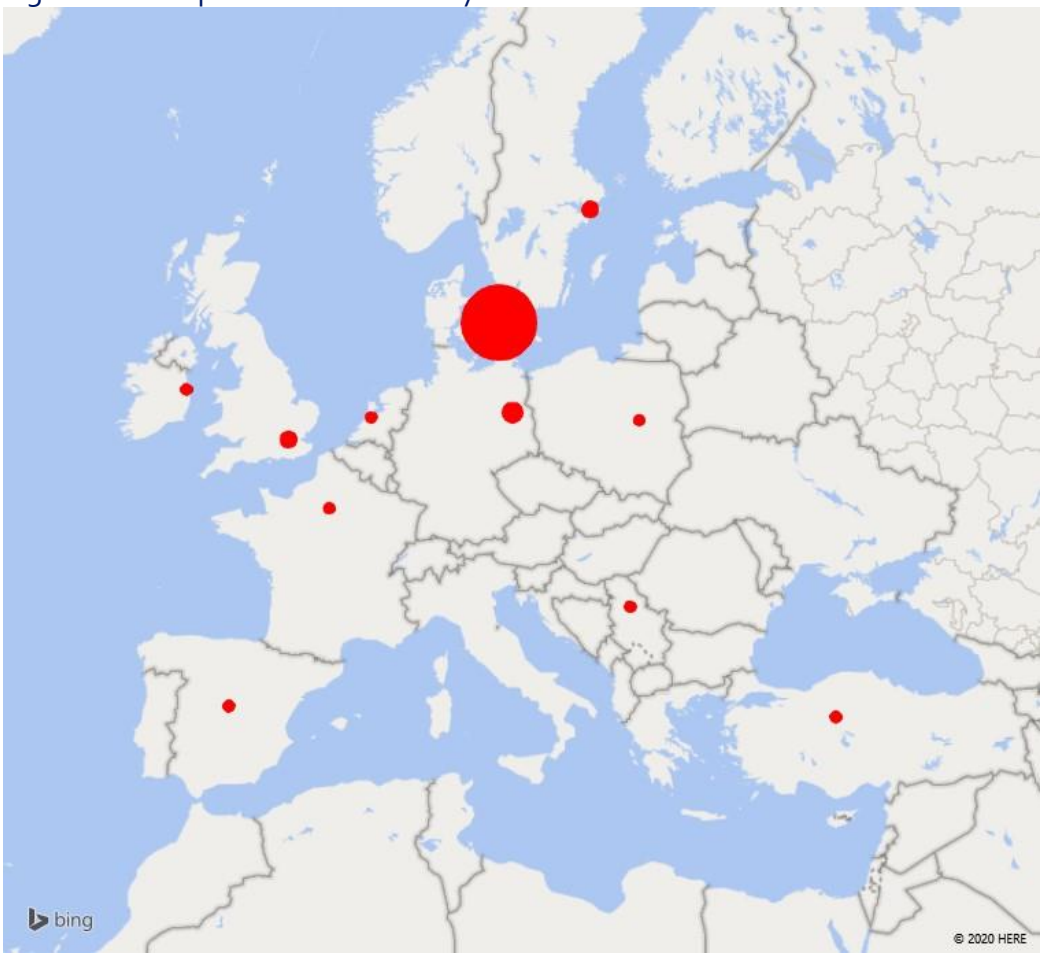


Figure 3.2 European collaborators by location



Analysing collaborators by sector shows the extent to which recipients of DDA-funded grants engage with researchers in various sectors, such as the private sector.

All collaborators receive a single sector code from the following list:

- academic: schools, colleges and universities;
- non-profit: charities and nongovernmental organisations;
- learned society: academic association or scholarly society;
- multiple: rarely used but usually a specific joint venture;
- private: usually industry or other privately owned business;
- public: public sector and government organisations from any country;
- hospital: encompasses all primary healthcare; and
- unknown: when the nature of the location could not be identified; the principal investigators will be asked for further information.

Table 3.4 shows the distribution of collaborators by sector. Table 3.5 and Figure 3.3 show the distribution of collaborations by the year collaboration started.

Table 3.4. Collaborators by sector

	Number of collaborations	Percentage
Academic	37	58%
Non-profit	2	3%
Learned society	0	0%
Multiple	0	0%
Private	9	14%
Public	1	2%
Hospital	15	23%
Unknown	0	0%
Total	64	100%

Table 3.5 Collaborations by year collaboration started

Year collaboration started	Number of collaborations	Percentage
2013	1	2%
2014	1	2%
2015	0	0%
2016	0	0%
2017	1	2%
2018	13	20%
2019	50	76%
Total	66	100%

Figure 3.3 Collaborations by year collaboration started

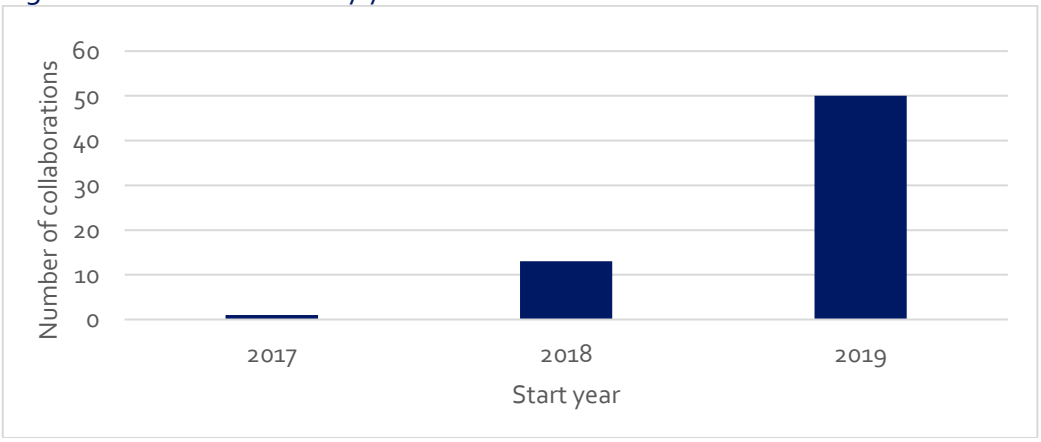


Figure 3.4 Collaborations by Reporting Award

4 Dissemination Activity

Included in this section:

- *Activities supported or undertaken by you or a member of your research team*
- *Recurring activities (but only report them once)*

Primary investigators reported dissemination activities outside academia on the DDA grant. Table 4.1 shows the reporting activity of dissemination activities. Caution should be exercised in interpreting these tables since the qualitative importance of the activities is not equivalent and is not easily susceptible to quantitative analysis.

Table 4.1 Number of dissemination activity

Total number of dissemination activities reported	91
Unique number of dissemination activities reported	91

The longer a grant has been running, the greater number of opportunities there are to engage in dissemination activities. The analysis omits the time to report the first dissemination activity and time distribution of dissemination activity.

Disseminating results beyond academia is an important part of the research process. Engaging with non-academic audiences helps to enhance understanding of complex topics, communicate the importance of the research carried out and inspire future careers in science. Table 4.2 and Figure 4.1 summarize the methods used to disseminate research, and Table 4.3 summarizes the primary audience for this activity.

Table 4.2 Dissemination activities by type

Dissemination method	Number of Instances	Percentage
A formal working group, expert panel or dialogue	15	16%
A magazine, newsletter or online publication	6	7%
A press release, press conference, interview etc.	1	1%
A talk or presentation	27	30%
Participation in an activity, workshop or the like	27	30%
Participation in open day or visit at my institution	2	2%
Scientific meeting (conference, symposium etc.)	0	0%
Engagement-focused website, blog or social media	11	12%
A broadcast e.g. TV/radio/film/podcast (other than news/press)	2	2%
Total	91	100%

Figure 4.1 Distribution of dissemination activity by type

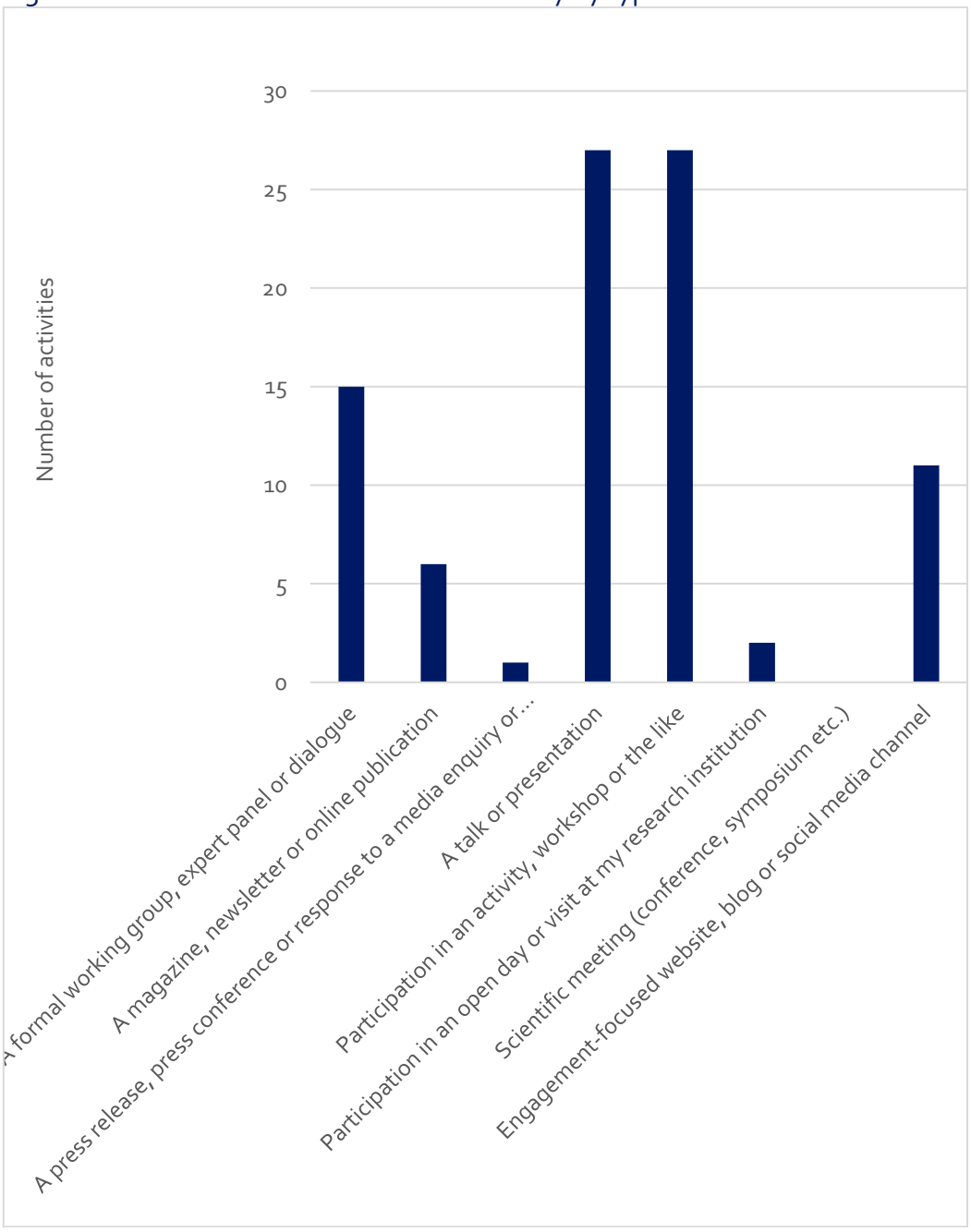


Table 4.3 Dissemination activities by audience

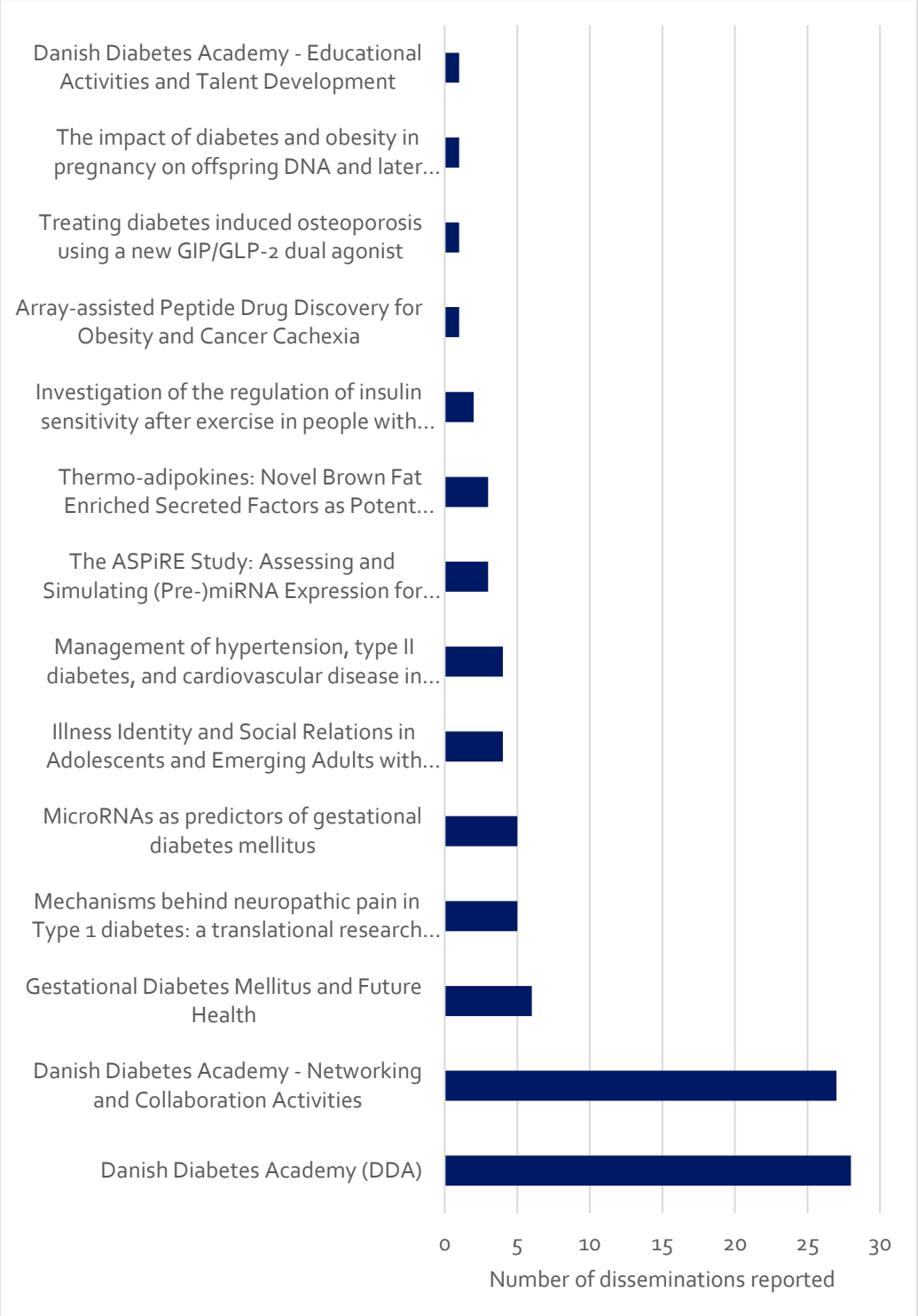
Dissemination audience	Number of Instances	Percentage
Health professionals	0	0%
Industry or business	1	1%
Media (as a channel to the public)	3	3%
Other academic audiences (collaborators, peers etc.)	0	0%
Other audiences	6	7%
Participants in your research and patient groups	0	0%
Patients, caregivers and/or patient groups	2	2%
Policy-makers and parliamentarians	0	0%
Policy-makers and politicians	0	0%
Postgraduate students	32	35%
Professional practitioners	38	42%
Public and other audiences	2	2%
Schools	7	8%
Study participants or study members	0	0%
Supporters	0	0%
Third-sector organisations	0	0%
Undergraduate students	0	0%
Total	91	100%

As part of reporting dissemination activities researchers can note recurring activities that are repeated over a number of years. These recurring activities are counted once for type/audience but each occurrence is counted to see the number of dissemination activities that took place each year and this is summarised below.

Table 4.4 Year dissemination activity took place

Year dissemination started	Number of Instances
2017	0
2018	25
2019	68

Figure 4.2 Disseminations by Reporting Award



5 Further Funding

Included in this section:

- *Further funding as a result of the grant*
- *Scholarships, studentships and fellowships*
- *Travel awards*

Primary investigators reported receiving further funding based on their awards. These additional funds may be to explore new, but related, research gained as a result of the DDA-funded award. Different areas of science have different costs associated with them and both the scale and diversity of external funding are of interest. To accommodate these two factors, the analysis in this section is broken down into two parts. The first part focuses on instances of further funding rather than the value of that funding. The second looks at the value of the funding and not the number of instances that make up the amount.

Table 5.1 Further Funding

Total number of further funding awards reported	28
Unique number of further funding award reported	28
Total Value of further funding (DKK)	12,010,832

Further funding can take time to produce, and recent grants are naturally less likely to have gained further funding, with the funding itself taking even longer. Table 5.2 shows the distribution of the start years of the further funding awarded.

Table 5.2 Further Funding by year funding started

Year further funding started	Number of instances	Percentage
Unknown	1	4%
2018	3	11%
2019	16	57%
2020	8	29%
Total	28	100%

As with collaborations, the sources of further funding were coded for country and sector to gain a greater understanding of how important other countries, governments, companies and non-profit organisations are in funding the same research as the DDA. The following tables break down this funding by country and funder.

Table 5.3 Further Funding by Country

Country	Number of Awards	Percentage by Number	Value of Awards	Percentage of Value
Denmark	23	82%	7,339,564	61%
Germany	4	14%	39,214	0%
United States	1	4%	4,632,054	39%
Total	28	100%	12,010,832	100%

Table 5.4 Top 10 Sources of Further Funding

Name	Value of Awards (DKK)	Percentage of Value
Novo Nordisk Foundation	4,867,865	41%
MedImmune	4,632,053	39%
Aarhus University	608,500	5%
Augustinus Foundation	500,000	4%
Danish Diabetes Association	450,000	4%
University of Copenhagen	195,000	2%
Aase and Ejnar Danielsen Foundation	185,000	2%
Aage Bangs Fond	171,699	2%
Nordea Foundation	52,000	0%
Odense University Hospital	50,000	%

Table 5.5 Further Funding by Sector

Sector	Value of Awards (DKK)	Percentage of Value
Charity/Non Profit	5,629,032	48%
Private	5,352,554	45%
Academic/University	804,246	7%
Hospitals	50,000	0%

Figure 5.1 Further Funding Instances by Reporting Award

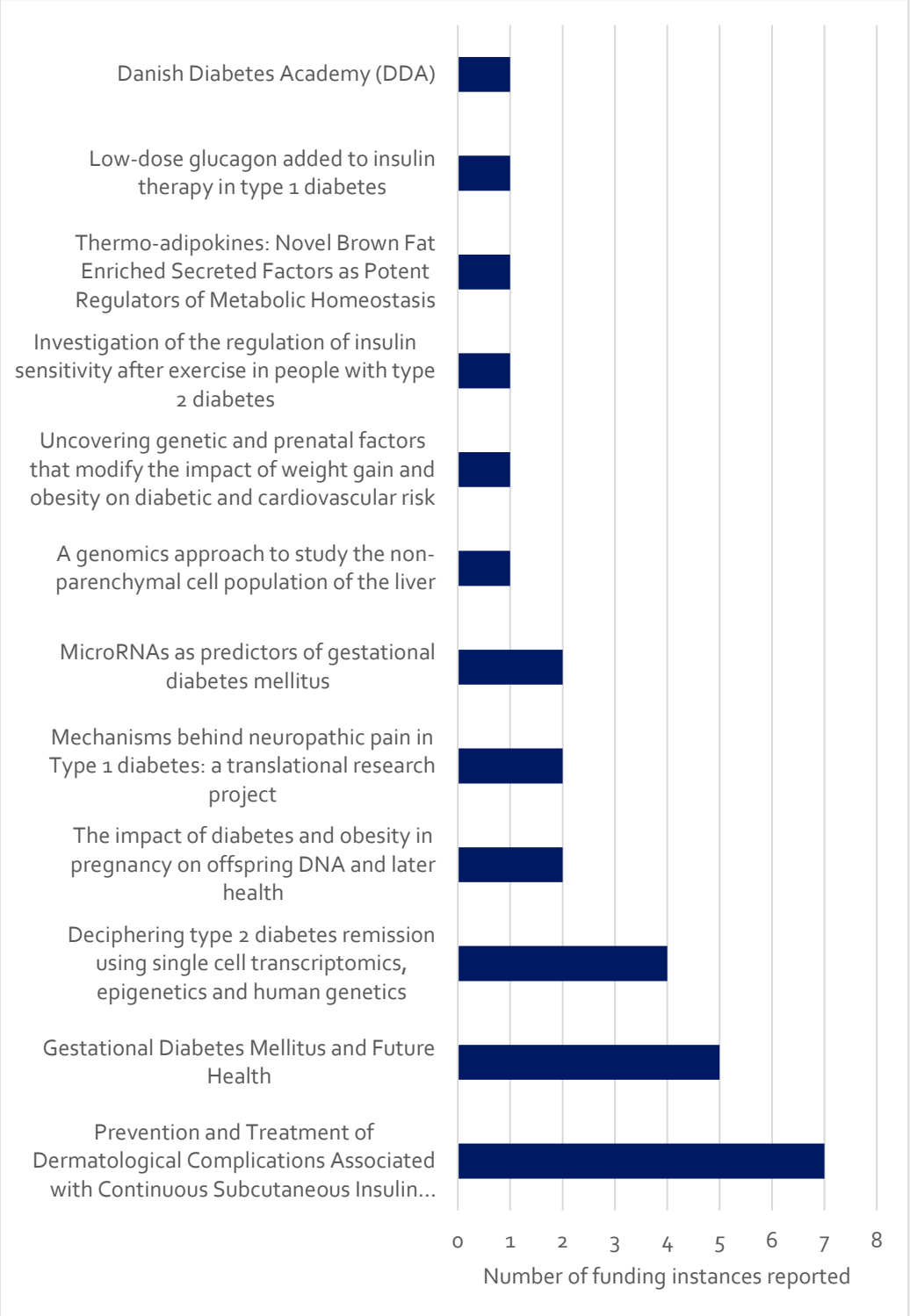
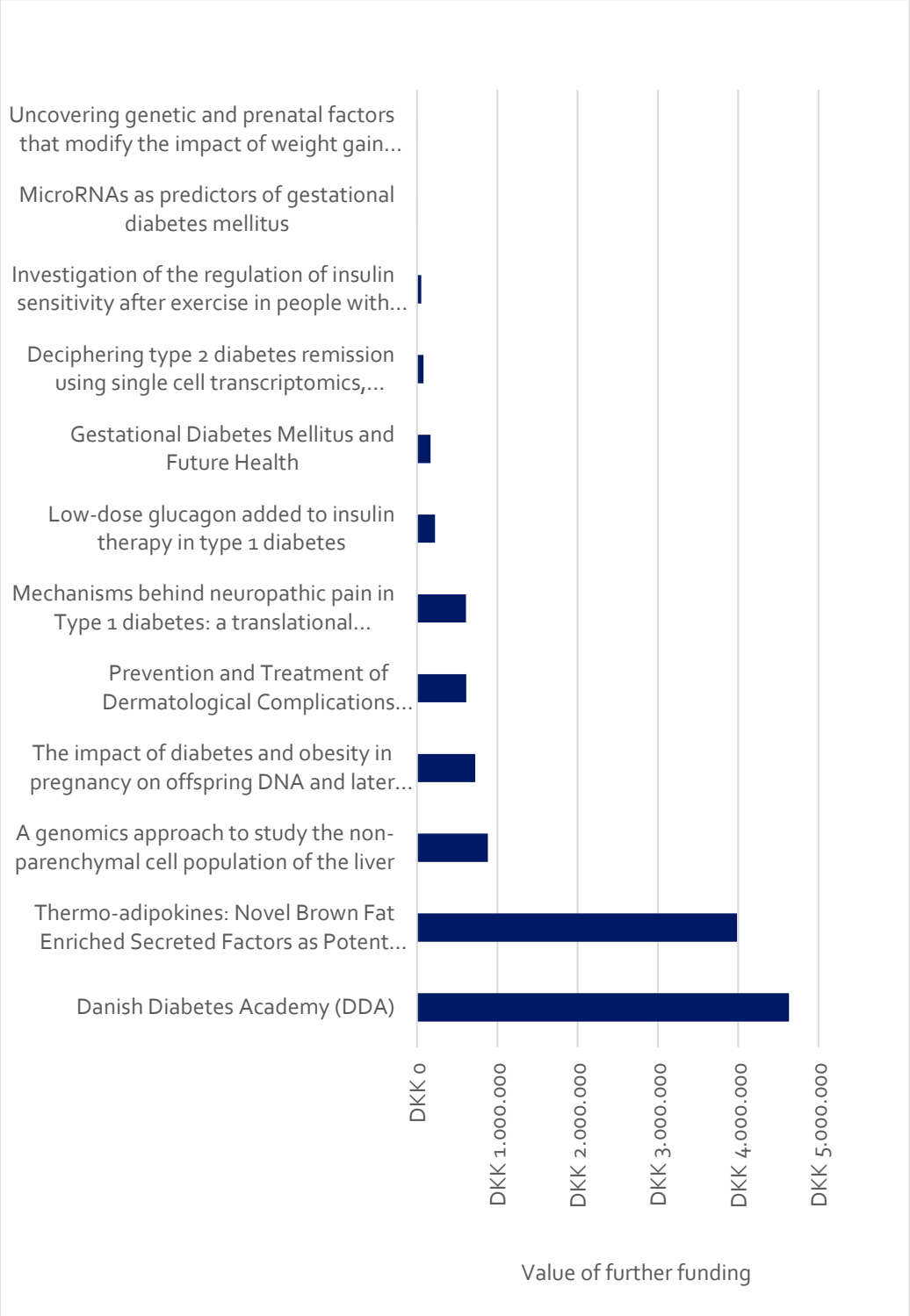


Figure 5.2 Further Funding Value by Reporting Award



6 Research Tools and Methods

Included in this section:
- *Research tools or methods (including transgenic animal models)*

Table 6.1: Research tools and methods

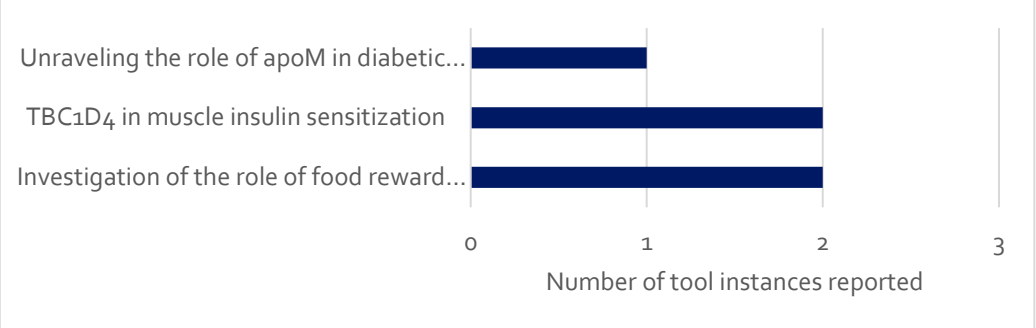
Total number of research tools and methods reported by the group	5
Unique number of research tools and methods reported by the group	4

The distribution of the type of research tools and methods, as well as whether they have been made available to others is shown below.

Table 6.2 Research tools and methods by type

Type of Tool/Method	**Number**	**Percentage**	**Number available to others**	**Percentage available to others**
Cell line	1	25%	0	0%
Model of mechanisms or symptoms - mammalian in vivo	2	50%	0	0%
Physiological assessment or outcome measure	1	25%	1	25%
Total	4	100%	1	25%

Figure 6.1 Number of Tools by Reporting Award



7 Research Databases and Models

Included in this section:

- *Databases, datasets and collections of*
- *Novel data analysis methods or techniques*
- *Data handling and control systems that have applications outside of the original research area or technology (eg data matching, monitoring, modelling, grid infrastructure*

Table 7.1 Research databases and models

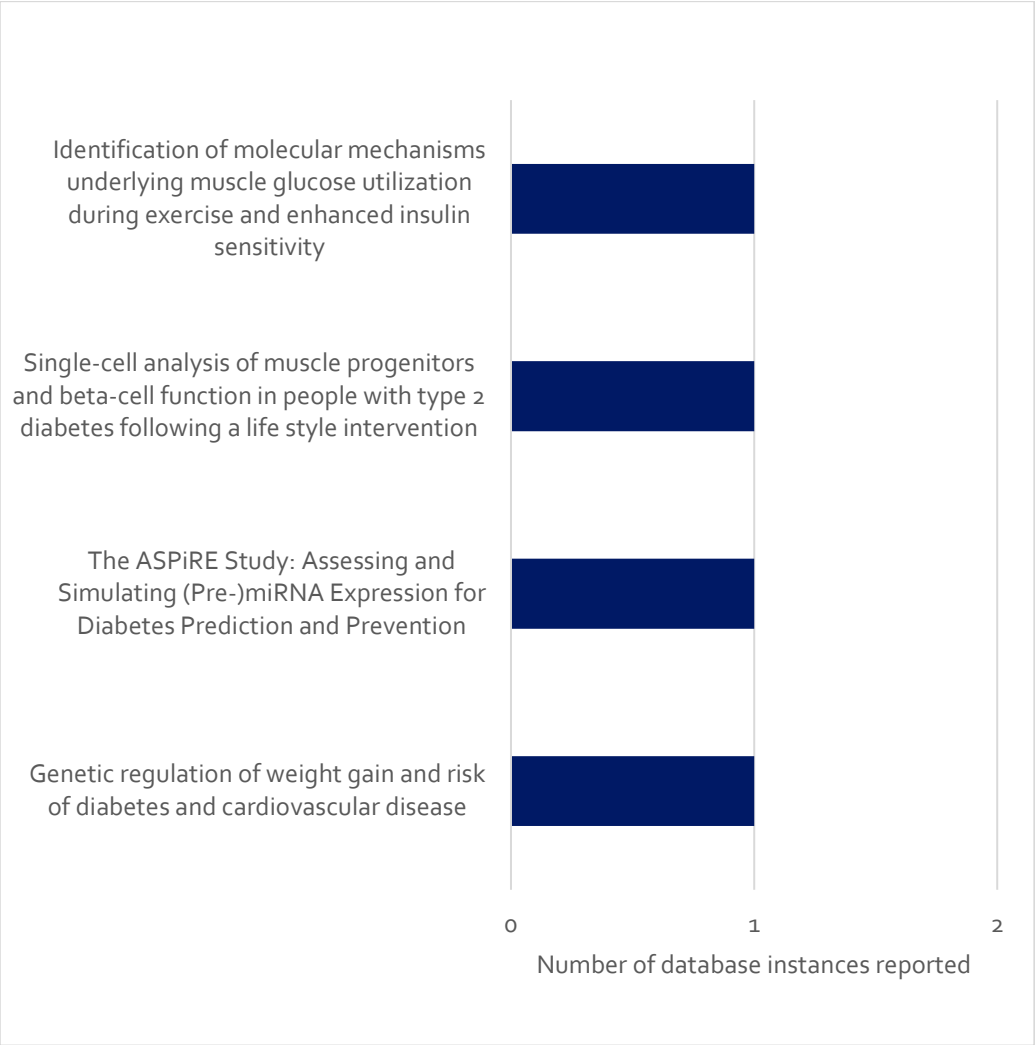
Total number of databases and models reported by the group	4
Unique number of databases and models reported by the group	4

The distribution of the type of research tools and methods, as well as whether they have been made available to others is shown below.

Table 7.2. Research databases and models by type

Type of Material	**Number**	**Percentage**	**Number available to others**	**Percentage available to others**
Database/Collection of data	3	75%	1	25%
Data analysis technique	1	25%	0	0%
Total	4	100%	1	25%

Figure 7.1 Number of Software/Databases by Reporting Award



8 Products and Interventions

Included in this section:

- *Drugs and vaccines*
- *Diagnostic tests, biomarkers and diagnostic imaging techniques*
- *Medical devices*
- *Surgical interventions*
- *Public health interventions*
- *Any other products that are, or are likely to be marketed/distributed to a wider audience.*
- *Clinical trials*
- *Changes to the status of products and interventions previously reported.*

Table 8.1: Medical Products and Interventions

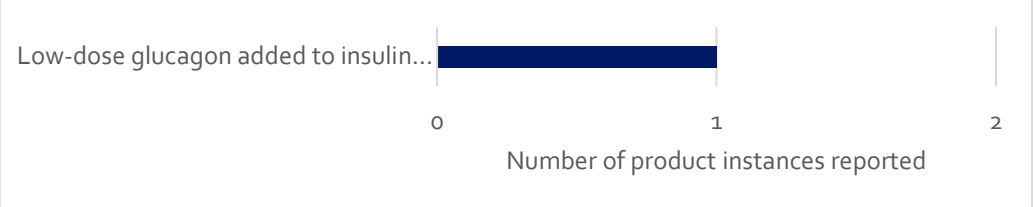
Total number of medical products and interventions reported by the group	1
Unique number of medical products and interventions reported by the group	1

The distribution of the type of medical product and intervention, as well as whether they include a clinical trial is shown below.

Table 8.2: Medical products and interventions by type

Type	**Number**	**Percentage**	**Number with a clinical trial**	**Percentage with a clinical trial**
Therapeutic Intervention - Medical Devices	1	100%	0	0%
Total	1	100%	0	0%

Figure 8.1 Number of Products/Interventions by Reporting Award



9 Personal Recognition as a Result of the Grant

Included in this section:

- *Significant awards, honours, appointments or other forms of recognition*
- *Awards or appointments made at a regional level or above*
- *Invitations to conferences named as a speaker or keynote speaker*
- *Research prizes or medals awarded*
- *Membership or fellowship of learned society*
- *Appointments to the editorial board of a journal or book series*

Table 9.1: Personal Recognition

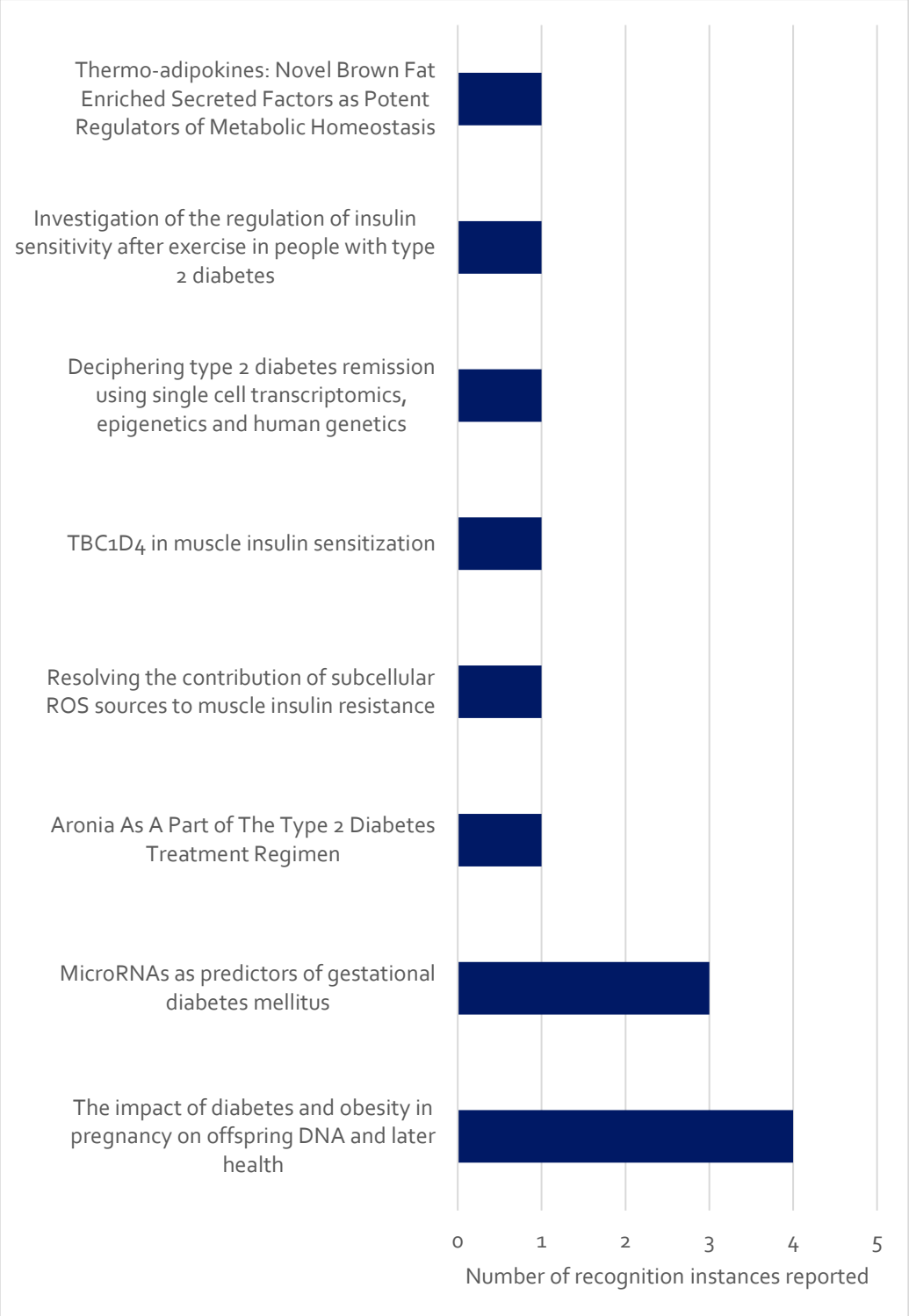
Total number of personal recognitions reported by the group	13
Unique number of personal recognitions reported by the group	13

The distribution of the type of personal recognition is shown below.

Table 9.2 Type of Recognition

Type	**Number**	**Percentage**
Appointed as the editor/advisor to a journal or book series	0	0%
Awarded honorary membership, or a fellowship, of a learned society	5	38%
Honorary Degree	0	0%
Personally asked as a key note speaker to a conference	4	31%
Poster/abstract prize	1	8%
Prestigious/honorary/advisory position to an external body	1	8%
Research prize	2	15%
Total	13	100%

Figure 9.1. Number of Recognitions by Reporting Award



10 Courses Organized

Included in this section:
- Courses organized by DDA PIs or a member of research group(s) or team(s);
- Recurring courses organized by DDA.

In addition to the common outcomes, DDA was asked to report on additional questions covering courses organised by its researchers. The following section will only cover courses organized by DDA in 2019. The number of courses by type, primary audience and subject are shown in the tables and figures below.

Case: DDA Summer School
The Summer School is DDA's flagship course, one that comes at no cost to researchers to participate in. The purpose of the Summer School is to introduce PhD students to the many aspects of diabetes and molecular metabolism research, with a focus on updating the PhD students with the latest in research within these two subjects. It also allows for researchers to introduce themselves to each other, creating a beneficial opportunity for networking. This course also allows PhD students a chance to present their work as well as getting real feedback from prominent PI's.

Current DDA courses from 2019 include:

Summer School

BBDC Joslin UCPH Conference

Basal Metabolism and Molecular Mechanisms in Diabetes

Of these courses, the average number of attendees was 53 participants per course. Participants were primarily PhD students from within the Danish realm, with secondary target groups being Academic faculty, Post-Doctoral Fellows and Postgraduate Students. The purposes of these courses varied from an introduction to a specific subject within the field, to networking with other researchers, to simply keeping researchers up-to-date with the latest research and technology, thus furthering advancements in the given field. For most courses, attendees were assigned ECTS point (2.7 on average).

Table 10.1 Type of courses

	Number	Percentage
Lecture, Exercise, Workshop	8	67%
Lecture	4	33%
Total	12	100%

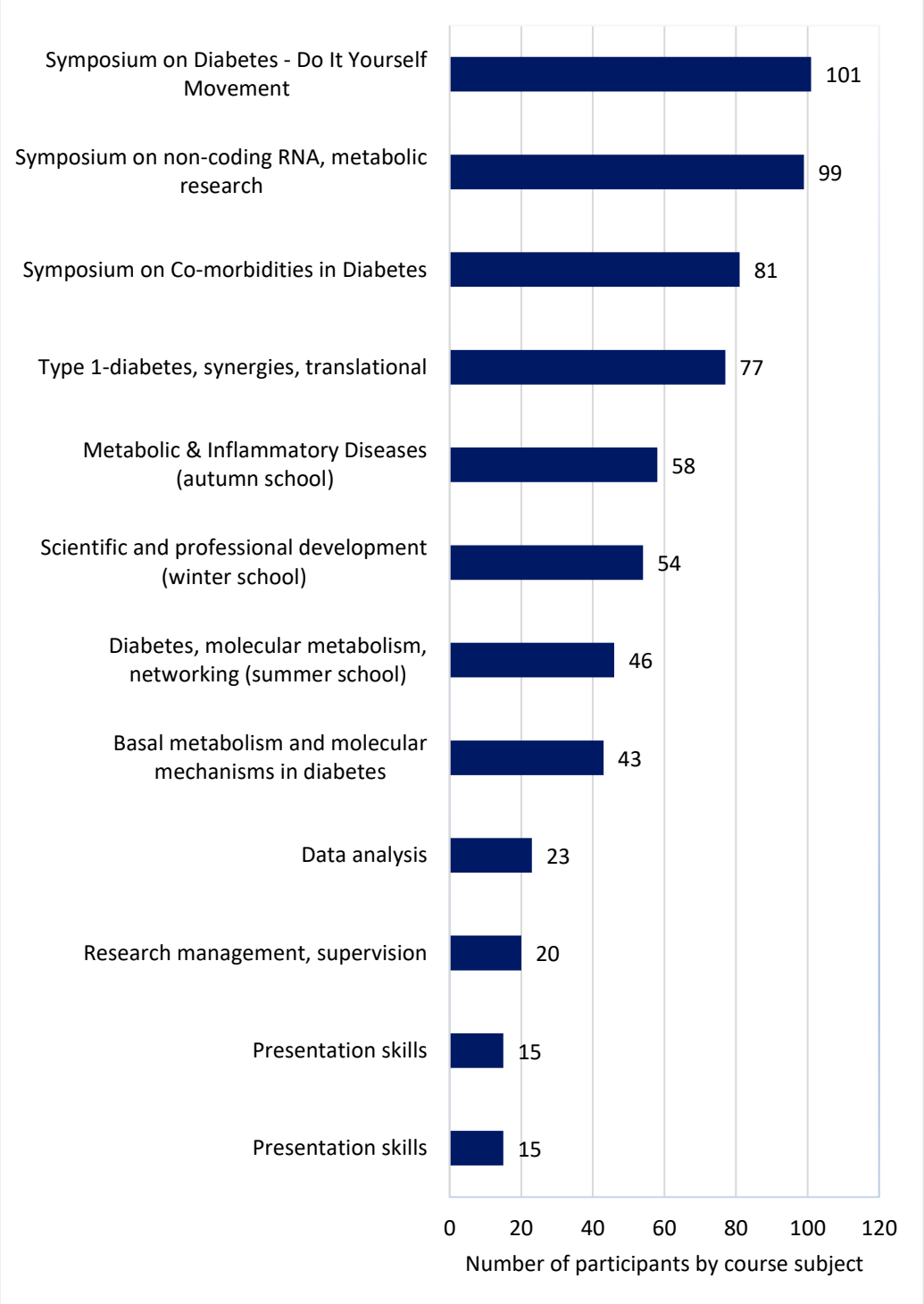
Table 10.2 Primary audience profile of courses

	Number	Percentage
PhD Students	3	25%
Post-Doctoral Fellows	2	17%
PhD Students + Postdoctoral Fellows	3	25%
Academic Faculty	4	33%
Other	0	0%
Total	12	100%

Table 10.3 Distribution of audience attendance at courses

Keyword	**No. Of participants**	**Primary participants**
Presentation skills	15	PhD students, Postdoctoral fellows
Presentation skills	15	PhD students, Postdoctoral fellows
Research management, supervision	20	Postdoctoral fellows
Data analysis	23	PhD students, Postdoctoral fellows
Basal metabolism and molecular mechanisms in diabetes	43	PhD students
Diabetes, molecular metabolism (summer school)	46	PhD students
Scientific and professional development (winter school)	54	Postdoctoral fellows
Metabolic & Inflammatory Diseases (autumn school)	58	PhD students
Type 1-diabetes, synergies, translational	77	Academic faculty
Symposium on Co-morbidities in Diabetes	81	Academic faculty
Symposium on non-coding RNA, metabolic research	99	Academic faculty
Symposium on Diabetes - Do It Yourself Movement	101	Academic faculty

Figure 10.1 Distribution of audience attendance at courses



11 Appendix 1: Collaborating Organisations

The number of mapped collaborations for each mapped organisation is shown below.

Parent Org Id	Parent Org	Sector	Count of Collaborations
X00038101	University of Copenhagen	Academic/University	5
X00045371	Steno Diabetes Center Copenhagen	Hospitals	4
F00025445	Novo Nordisk	Private	4
F00005744	Aarhus University	Academic/University	3
X00038100	Technical University of Denmark	Academic/University	3
F00013068	Herlev Hospital	Hospitals	2
X00059635	AstraZeneca	Private	2
X00038129	Aalborg University	Academic/University	1
X00093858	Bainan Biotech	Private	1
F00021359	Bilkent University	Academic/University	1
X00000427	Copenhagen University Hospital	Academic/University	1
X00047690	Danish Diabetes Association	Charity/Non Profit	1
F00005472	Dublin City University	Academic/University	1
F00036753	Frederiksberg Hospital	Hospitals	1
X00076997	Geisinger Health System	Hospitals	1
X00092635	German Center for Diabetes Research	Hospitals	1
X00089842	Gubra ApS	Private	1
F00029047	Helmholtz Zentrum München	Academic/University	1
X00054649	Holbæk Hospital	Hospitals	1
X00088123	Hvidovre Hospital	Hospitals	1
F00046031	Joslin Diabetes Center	Public	1
X00038116	Karolinska Institute	Academic/University	1
F00013324	King Saud University	Academic/University	1
X00001339	Lund University	Academic/University	1
X00000507	Maastricht University (UM)	Academic/University	1
F00006094	National University of Singapore	Academic/University	1

F00014778	Nicolaus Copernicus University in Torun	Academic/University	1
F00024133	Pfizer Inc	Private	1
X00089172	Rigshospitalet	Hospitals	1
F00035927	Roskilde University	Academic/University	1
F00006596	Salk Institute for Biological Studies	Charity/Non Profit	1
X00092489	Steno Diabetes Center Aarhus	Hospitals	1
X00092157	Steno Diabetes Center Nordjylland	Hospitals	1
F00007630	University of Belgrade	Academic/University	1
F00006072	University of Coimbra	Academic/University	1
F00006110	University of Kiel	Academic/University	1
X00000340	University of Leeds	Academic/University	1
F00014598	University of Lille	Academic/University	1
F00006116	University of Lisbon	Academic/University	1
F00045047	University of Melbourne	Academic/University	1
F00005584	University of Murcia, Spain	Academic/University	1
X00000414	University of Queensland	Academic/University	1
X00000491	University of Southern Denmark	Academic/University	1
F00005424	University of Toronto	Academic/University	1
X00030246	University of Washington	Academic/University	1
F00005370	Vejle Hospital	Hospitals	1
F00030503	Weizmann Institute of Science	Academic/University	1
F00004898	Zealand Pharma	Private	1
	Elkaerholm		1
	Fitness World A/S. CVR-nr. 2565 2991. Egegårdsvej 61. 2610 Rødovre		1

12 Appendix 2: Centre Awards

Award Reference	Award Type	Title	Centre Award Type
PhDI001-19	Studentship	Array-assisted Peptide Drug Discovery for Obesity and Cancer Cachexia	A
PhD001-18	Studentship	Modulation of circulating levels of the ketone body 3-hydroxybutyrate in patients with type 2 diabetes and heart failure with preserved ejection fraction: Cardiovascular effects and pathophysiological aspects	A
PhD006-19	Studentship	Extracellular Vesicles in Non-Alcoholic Fatty Liver Disease: A Novel Approach for Disease Diagnosis and Monitoring	A
PhD002-18	Studentship	Prevention and Treatment of Dermatological Complications Associated with Continuous Subcutaneous Insulin Infusion and/or Continuous Glucose Monitoring in Pediatric Patients with Type 1 Diabetes	A
PD005-18	Fellowship	Unraveling the role of apoM in diabetic nephropathy - Implication of glycocalyx formation and S1P signaling on kidney fibrosis	A
PD001-18	Fellowship	Genetic regulation of weight gain and risk of diabetes and cardiovascular disease	A
PhD003-18	Studentship	Gestational Diabetes Mellitus and Future Health	A
PDI001-19	Fellowship	Investigating a potential future treatment strategy for diabetes-induced osteoporosis	A
PhDI003-19	Studentship	Aronia As A Part of The Type 2 Diabetes Treatment Regimen	A
PhD005-19	Studentship	A genomics approach to study the non-parenchymal cell population of the liver	A

PhD004-18	Studentship	Targeting SIRT1 signaling pathways in skeletal muscle to promote metabolic health	A
VP001-19	Fellowship	Targeting key hubs for beta cell preservation in type 1 diabetes	A
VP001-18	Fellowship	Investigation of the role of food reward and other behavioral aspects of appetite within the field of (pre-)diabetes research	A
PD002-18	Fellowship	Understanding the mechanisms underpinning metabolic flexibility	A
PhDI002-19	Studentship	Treating diabetes induced osteoporosis using a new GIP/GLP-2 dual agonist	A
PD003-19	Fellowship	Metabolic and epigenetic changes after adjuvant chemotherapy in patients with early breast cancer	A
VP002-18	Fellowship	The ASPiRE Study: Assessing and Simulating (Pre-)miRNA Expression for Diabetes Prediction and Prevention	A
PhD005-18	Studentship	Defining the link between hepatic NAD+ salvage capacity and liver fibrosis	A
PD004-19	Fellowship	Resolving the contribution of subcellular ROS sources to muscle insulin resistance	A
PD006-18	Fellowship	The impact of diabetes and obesity in pregnancy on offspring DNA and later health	A
PhD002-19	Studentship	Mechanisms behind neuropathic pain in Type 1 diabetes: a translational research project	A
PhD006-18	Studentship	Uncovering genetic and prenatal factors that modify the impact of weight gain and obesity on diabetic and cardiovascular risk	A
PD007-18	Fellowship	Effect of repeated cold exposure on human brown adipose tissue function - can obesity induced whitening of brown fat be reversed to counteract type II diabetes	A
PD005-19	Fellowship	The metabolic consequences of adverse early life conditions and subsequent risk for adult type 2 diabetes	A

PhD007-18	Studentship	Illness Identity and Social Relations in Adolescents and Emerging Adults with Type 1 Diabetes	A
PDMI001-19	Fellowship	Identification and Validation of Non-Invasive Biomarkers for Non-Alcoholic SteatoHepatitis (NASH)	A
PD001-19	Fellowship	TBC1D4 in muscle insulin sensitization	A
PhD003-19	Studentship	Cardiac and hepatic metabolic flexibility in fatty liver disease: Impact of NAFL and NASH in type 2 diabetes and of GLP-1 recept	A
PhD008-18	Studentship	Deciphering type 2 diabetes remission using single cell transcriptomics, epigenetics and human genetics	A
PhD009-18	Studentship	Deciphering the Role of Lactate in Brown Fat - Brain Cross-Talk	A
PD008-18	Fellowship	The role of the apolipoprotein apoA-IV in metabolic health	A
PhD010-18	Studentship	Single-cell analysis of muscle progenitors and beta-cell function in people with type 2 diabetes following a life style intervention	A
PhD011-18	Studentship	Unravelling mechanisms related to glucose stimulated beta cell function - A systematic genetic examination of measures of oral glucose stimulated insulin secretion	A
PhDI004-19	Studentship	Assessment, mapping, and benchmark of antimicrobial technologies for future injection device application	A
VP003-18	Fellowship	Investigation of the regulation of insulin sensitivity after exercise in people with type 2 diabetes	A
PhD004-19	Studentship	Discovery and Study of Hot-Spots for Proteome Advanced Glycation	A
PhD001-19	Studentship	Identification of molecular mechanisms underlying muscle glucose utilization during exercise and enhanced insulin sensitivity	A
PD004-18	Fellowship	Thermo-adipokines: Novel Brown Fat Enriched Secreted Factors as Potent Regulators of Metabolic Homeostasis	A

PD002-19	Fellowship	Low-dose glucagon added to insulin therapy in type 1 diabetes	A
PhD012-18	Studentship	Management of hypertension, type II diabetes, and cardiovascular disease in low- and middle-income countries	A
PD009-18	Fellowship	Mapping and predicting distinct patterns of glycaemic control across a life course in patients with type 1 diabetes (MapForLife1)	A
PD010-18	Fellowship	MicroRNAs as predictors of gestational diabetes mellitus	A
VP004-18	Fellowship	Improving Fatty Acid Flux to Restore HDL's Protective Function with Obesity and Diabetes	A
Other		Other	A - Block
NNF17SA0031406-1	Capital/infrastructure (including equipment)	Danish Diabetes Academy - Educational Activities and Talent Development	A - Block
NNF17SA0031406-2	Capital/infrastructure (including equipment)	Danish Diabetes Academy - Networking and Collaboration Activities	A - Block
NNF17SA0031406-3	Capital/infrastructure (including equipment)	Danish Diabetes Academy - Grants: scholarships, fellowships, visiting professorships	A - Block
NNF17SA0031406	Capital/infrastructure (including equipment)	Danish Diabetes Academy (DDA)	A - Block
PDMI001-18	Fellowship	Progression of prediabetes to type 2 diabetes and/or diabetes complications	C
PDMI002-18	Fellowship	LOXIN variants and sLox-1 measures as Biomarkers for cardiovascular disease risk	C

About the Novo Nordisk Foundation

The Novo Nordisk Foundation is an independent Danish foundation with corporate interests. It has two objectives: 1) to provide a stable basis for the commercial and research activities of the companies in the Novo Group; and 2) to support scientific, humanitarian and social causes.

The vision of the Foundation is to contribute significantly to research and development that improves the lives of people and the sustainability of society. Since 2010, the Foundation has donated more than DKK 20 billion (€2.7 billion), primarily for research at public institutions and hospitals in Denmark and the other Nordic countries. Read more at www.novonordiskfonden.dk/en