

## Sofia Forslund, PhD

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### 1 | General information

Contact details: Max Delbrück Center for Molecular Medicine / Charité -  
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Current position: Junior Group Leader, Host-Microbiome Factors in Cardiovascular Disease lab, Max  
Delbrück Center for Molecular Medicine / Charité - Universitätsmedizin Berlin

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### 2 | Academic education

2007 – 2011 PhD, Bioinformatics, Stockholm University, Stockholm, Sweden  
2000 – 2007 MSc, Bioinformatics, Uppsala University, Uppsala, Sweden  
2000 – 2006 MSc, Molecular Biotechnology, Uppsala University, Uppsala, Sweden

### 3 | Advanced academic qualifications:

2011 PhD thesis, Biochemistry / theoretical chemistry, “*The relationship between orthology, protein domain architecture, and function*”, Stockholm University, Sweden (Supervisor: Erik Sonnhammer)  
2006 MSc, Molecular Biotechnology Engineering, “*VisRD - Visual Recombination Detection*”, Uppsala University, Sweden (Supervisor: Vincent Moulton)  
2006 MSc, Bioinformatics Engineering, “*Reconstruction of Dynamic mRNA Networks*”, Uppsala University, Sweden (Supervisor: Mats Gustafsson)

### 4 | Postgraduate professional career:

Since 2018 Junior Group Leader, Experimental and Clinical Research Center (ECRC) (MDC / Charité), Berlin  
2014 – 2018 Research Scientist, European Molecular Biology Laboratory (EMBL)  
2012 – 2014 Postdoctoral Fellow, EMBL

### 5 | Other:

#### Awards/Honors

- Clarivate/Web of Science Highly Cited Researcher (2019 – 2021)
- Heidelberg Molecular Medicine Partnership Unit (MMPU) Fellow (2013)
- Alexander von Humboldt Foundation Postdoctoral Research Fellow (2012)

### 6 | Selected publications:

1. **Forslund S\***, Chakaroun C\*, Zimmermann-Kogadeeva M\*, Markó L\*, Aron-Wisnewsky J\*, Nielsen T\*, Moitinho-Silva L, Schmidt TS, Falony G, Vieira-Silva S, Adriouch S, Alves R, Assmann K, Bastard JP, Birkner T, Caesar R, Chilloux J, Coelho LP, Fezeu L, Galleron N, Helft G, Isnard R, Ji B, Kuhn M, Le Chatelier E, Myridakis A, Olsson L, Pons N, Prifti E, Quinquis B, Roume H, Salem JE, Sokolovska N, Tremaroli V, Valles-Colomer M, Lewinter C, Sondertoft N, Pedersen HK, Hansen T, The MetaCardis Consortium, Gøtze JP, Køber L, Vestergaard H, Hansen T, Zucker JD, Hercberg S, Oppert JM, Letunic I, Nielsen J, Bäckhed F, Ehrlich SD, Dumas ME, Raes R, Pedersen O, Clément K, Stumvoll M, Bork P. Combinatorial, additive and dose-dependent drug-microbiome associations. **Nature** 2021; 600:500–505
2. Maifeld A, Bartolomaeus H, Löber U, Avery EG, Steckhan N, Markó L, Wilck N, Hamad I, Šušnjar U, Mähler A, Hohmann C, Cramer H, Dobos G, Lesker TR, Strowig T, Dechend R, Bzdok D, Kleinewietfeld M, Michalsen A\*, Müller DN\*, **Forslund SK\***. Fasting alters the gut microbiome reducing blood pressure and body weight in metabolic syndrome patients. **Nat Comm** 2021; 12(1):1970

3. Bartolomeaus TUP, Birkner T, Bartolomeaus H, Löber U, Avery EG, Mähler A, Weber D, Kochlik B, Balogh A, Wilck N, Boschmann M, Müller DN, Markó L\*, **Forslund SK\***. Quantifying Technical Confounders in Microbiome Studies. **Cardiovasc Res** 2021; 117(3):863-875
4. Molinaro A, Bel Lassen P, Henricsson M, Wu H, Adriouch S, Belda E, Chakaroun R, Nielsen T, Bergh PO, Rouault C, André S, Marquet F, Andreelli F, Salem JE, Assmann K, Bastard JP, **Forslund S**, Le Chatelier E, Falony G, Pons N, Prifti E, Quinquis B, Roume H, Vieira-Silva S, Hansen TH, Pedersen HK, Lewinter C, Sønderskov NB; MetaCardis Consortium, Køber L, Vestergaard H, Hansen T, Zucker JD, Galan P, Dumas ME, Raes J, Oppert JM, Letunic I, Nielsen J, Bork P, Ehrlich SD, Stumvoll M, Pedersen O, Aron-Wisniewsky J, Clément K, Bäckhed F. Imidazole propionate is increased in diabetes and associated with dietary patterns and altered microbial ecology. **Nat Commun** 2020; 11(1):5881
5. Bartolomeaus H, Avery EG, Bartolomeaus TUP, Kozhakhmetov S, Zhumadilov Z, Müller DN, Wilck N, Kushugulova A\*, **Forslund SK\***. Blood pressure changes correlate with short-chain fatty acid production potential shifts under a synbiotic intervention. **Cardiovasc Res** 2020; 116(7):1252-1253
6. Vieira-Silva S, Falony G, Belda E, Nielsen T, Aron-Wisniewsky J, Chakaroun R, **Forslund SK**, Assmann K, Valles-Colomer M, Nguyen TTD, Proost S, Prifti E, Tremaroli V, Pons N, Le Chatelier E, Andreelli F, Bastard JP, Coelho LP, Galleron N, Hansen TH, Hulot JS, Lewinter C, Pedersen HK, Quinquis B, Rouault C, Roume H, Salem JE, Søndertoft NB, Touch S; MetaCardis Consortium, Dumas ME, Ehrlich SD, Galan P, Gøtze JP, Hansen T, Holst JJ, Køber L, Letunic I, Nielsen J, Oppert JM, Stumvoll M, Vestergaard H, Zucker JD, Bork P, Pedersen O, Bäckhed F, Clément K, Raes J. Statin therapy is associated with lower prevalence of gut microbiota dysbiosis. **Nature** 2020; 581(7808):310-315
7. Pedersen HK\*, **Forslund SK\***, Gudmundsdottir V, Petersen AØ, Hildebrand F, Hyötyläinen T, Nielsen T, Hansen T, Bork P, Ehrlich SD, Brunak S, Oresic M, Pedersen O, Nielsen HB. A computational framework to integrate high-throughput '-omics' datasets for the identification of potential mechanistic links. **Nat Protoc** 2018; 13(12):2781-2800
8. Palleja A\*, Mikkelsen KH, **Forslund SK\***, Kashani A, Allin KH, Nielsen T, Hansen TH, Liang S, Feng Q, Zhang C, Pyl PT, Coelho LP, Yang H, Wang J, Typas A, Nielsen MF, Nielsen HB, Bork P, Wang J, Vilsbøll T, Hansen T, Knop FK, Arumugam M, Pedersen O. Recovery of gut microbiota of healthy adults following antibiotics exposure. **Nat Microbiol** 2018; 3(11):1255-1265
9. Pedersen HK, Gudmundsdottir V, Nielsen HB, Hyötyläinen T, Nielsen T, Jensen BAH, **Forslund K**, Hildebrand F, Prifti E, Falony G, Le Chatelier E, Levenez F, Doré J, Mattila I, Plichta DR, Pöhö P, Hellgren LI, Arumugam M, Sunagawa S, Vieira-Silva S, Jørgensen T, Bak Holm J, Trošt K, MetaHit consortium, Kristiansen K, Brix S, Raes J, Wang J, Hansen T, Bork P, Brunak S, Oresic M, Ehrlich SD, Pedersen O. Human gut microbes impact host serum metabolome and insulin sensitivity. **Nature** 2016; 535:376–381
10. **Forslund K\***, Hildebrand F\*, Nielsen T\*, Falony G\*, Le Chatelier E\*, Sunagawa S, Prifti E, Vieira-Silva S, Gudmundsdottir V, Krogh Pedersen H, Arumugam M, Kristiansen K, Yvonne Voigt A, Vestergaard H, Hercog R, Igor Costea P, Roat Kultima J, Li J, Jørgensen T, Levenez F, Dore J; MetaHIT consortium, Bjorn Nielsen H, Brunak S, Raes J, Hansen T, Wang J, Dusko Ehrlich S, Bork P, Pedersen O. Disentangling type 2 diabetes and metformin treatment signatures in the human gut microbiota. **Nature** 2015; 528(7581):262-266

\*contributed equally