

Susanne Kaser

Biographical sketch

During my thesis at the Department of Internal Medicine, University Hospital Innsbruck, in the group of Josef Patsch, I started my research on regulation of transfer of neutral lipids in humans and afterwards focused on systemic and cellular pathophysiological aspects of fatty liver disease in states of insulin resistance and obesity. Mechanistically, we found that reduced cellular effects of adiponectin contribute to development of steatohepatitis in patients with underlying steatosis. In a later study we identified apolipoprotein A5 as critical determinant of hepatic triglyceride accumulation. Beginning with 2015 our Christian Doppler Laboratory for Metabolic Crosstalk which is headed by myself focused on investigating effects of various diets on cellular glucose and fatty acid metabolism especially in the liver and the skeletal muscle. Additionally, we aim to better characterize determinants of adipose tissue differentiation and transition of brown into white adipocytes or *vice versa* in various mouse models of diet-induced obesity or *in vitro* cell culture models.

Curriculum vitae

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Date of birth 24th July, 1975
Place of birth Linz
Citizenship Austrian

Education

1993 Matura, Bundesgymnasium und Bundesrealgymnasium Anton-Brucknerstraße Wels, Austria
1998 Graduation (MD), Leopold Franzens University Innsbruck, Austria
2004 Specialist in Internal Medicine
2007 Specialist in Endocrinology and Metabolism
2011 Specialist in Angiology

Career History

1997-1997 Thesis “Cholesteryl ester transfer in human plasma“ in the Laboratory for Atherosclerosis Research, University Hospital Innsbruck, Department of Medicine, Innsbruck
2004 Specialist in Internal Medicine
2006 Achievement of the postdoctoral lecture qualification (Habilitation)
2007 Specialist in Endocrinology and Metabolism
2010 Observership at the Department of Endocrinology, Presbyterian Hospital, Columbia University, NY (Head: John Bilezikian, MD, Professor)
2011 Specialist in Angiology
2012 – ongoing Deputy Head of the Department of Internal Medicine I, Medical University Innsbruck, Austria
2015 – ongoing Head of the Christian Doppler Laboratory for Metabolic Crosstalk

Awards Award of the „Preis der Ärztekammer für Tirol 2005“
Scientific Award of the Austrian Diabetes Society (ÖDG) „Forschungspreis der österreichischen Diabetesgesellschaft“

Publications: number of publications: 94, h-index (all): 34, citations: >4400
[Google Scholar link](#)

Patents None

Other functions Academic Editor PLOS ONE
Reviewer for “Netherlands Organisation for Scientific Research” (VIDI), Health Research Board (Ireland) and Österreichische Nationalbank (OeNB)
Reviewer for Diabetologia, J Hepatol, Hepatology, Int J Obes, Atherosclerosis, Obesity, Gerontology, PLoSOne, Archives of Gynecology and Obstetrics, European Journal of Nutrition, Biological Reviews, Nutrients

Research interests Cellular mechanisms of insulin resistance in adipose tissue and the liver
Endocrine and metabolic mechanisms of fatty liver disease

Funds obtained (in €, 5 most important)

Christian Doppler Laboratory for Metabolic Crosstalk	1.002.500	CDG	2015-ongoing Module 1: start 2015 Module 2: start 2017
OeNB Jubiläumsfonds (15889)	60.000	OeNB	2014-2015
OeNB Jubiläumsfonds (12804)	87.000	OeNB	2008-2009
Scientific Award	35.000	OEDG	2008
Medizinischer Forschungsgrant	12.300	MFF	2002

PhD students since 2013

PhD Student	PhD Thesis	Start	Defense	Paper
Claudia Ress, MD	Intracellular effects of apolipoprotein A5	2008	ongoing	2
Sabrina Folie, MSc	Environmental determinants of adipocyte function and morphology	2016	ongoing	2
Maximilian Hofer, MD	Liver-adipose tissue axis in diet induced insulin resistance	2017	ongoing	

International collaborators

	Project	Joint public.	lab for stay abroad
Javier Crespo (Hospital Universitario Valdecilla, Spain)	GH in NAFLD	1 paper submitted	no

Susanne Kaser; 10 most important scientific publications

1. Ress C, Paulweber M, Goebel G, Willeit K, Ruffinatscha K, Strobl a, Salzmann K, Kedenko L, Tschoner A, Staudacher G, Iglseder B, Tilg H, Paulweber B, **Kaser S**. (2018) Circulating Wnt inhibitory factor 1 levels are associated with development of cardiovascular disease. **Atherosclerosis**, in press
2. Ress C, Moschen AR, Sausgruber N, Tschoner A, Graziadei I, Weiss H, Schgör W, Ebenbichler CF, Konrad RJ, Patsch JR, Tilg H, **Kaser S**. (2011) The role of apolipoprotein A5 in non-alcoholic fatty liver disease. **Gut**. 60(7):985-91
3. **Dobner J**, Ress C, Ruffinatscha K, Salzmann K, Salvenmoser W, Folie S, Wieser V, Moser P, Weiss G, Goebel G, Tilg H, **Kaser S** (2017) Fat-enriched rather than high-fructose diets promote whitening of adipose tissue in a sex-dependent manner. **J Nutr Biochem**. 49:22-29
4. **Kaser S**, Moschen A, Cayon A, Kaser A, Crespo J, Pons-Romero F, Ebenbichler CF, Patsch JR, Tilg H. (2005) Adiponectin and its receptors in non-alcoholic steatohepatitis. **Gut**. 54(1):117-21.
5. Moschen AR, **Kaser S**, Tilg H (2013) Non-alcoholic steatohepatitis: a microbiota-driven disease. **Trends Endocrinol Metab**.24(11):537-45.
6. Sonnweber T, Ress C, Nairz M, Theurl I, Schroll A, Murphy AT, Wroblewski V, Witcher DR, Moser P, Ebenbichler CF, **Kaser S***, Weiss G* (2012). High fat diet causes iron deficiency via hepcidin independent reduction of duodenal iron absorption. **J Nutr Biochem**, 23(12):1600-8
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7. **Kaser S**, Moschen A, Kaser A, Ludwiczek O, Ebenbichler CF, Vogel W, Jaschke W, Patsch JR, Tilg H. (2005) Circulating adiponectin reflects severity of liver disease but not insulin sensitivity in liver cirrhosis. **J Intern Med**. 258(3):274-80.
8. **Kaser S**, Sandhofer A, Föger B, Ebenbichler CF, Malaimare L, Paulweber B, Patsch JR. (2001) Influence of obesity and insulin sensitivity on phospholipid transfer protein (PLTP)-activity. **Diabetologia** 44(9):1111-1117
9. **Kaser S**, Laimer M, Sandhofer A, Salzmann K, Ebenbichler CF, Patsch JR. (2004) Effects of weight loss on PLTP activity and HDL particle size. **Int J Obes Relat Metab Disord**. 28(10):1280-2
10. **Kaser S**, Föger B, Waldenberger P, Nachbaur K, Propst A, Jaschke W, Vogel W, Patsch JR. (2000) Transjugular intrahepatic portosystemic shunt (TIPS) augments hyperinsulinemia in patients with cirrhosis. **J Hepatol**. 33(6):902-6

Susanne Kaser, all publications since 2013

1. Ress C, Paulweber M, Goebel G, Willeit K, Ruffinatscha K, Strobl a, Salzmann K, Kedenko L, Tschoner A, Staudacher G, Iglseder B, Tilg H, Paulweber B, **Kaser S**. (2018) Circulating Wnt inhibitory factor 1 levels are associated with development of cardiovascular disease. **Atherosclerosis**, in press
2. Dobner J, Ress C, Ruffinatscha K, Salzmann K, Salvenmoser W, Folie S, Wieser V, Moser P, Weiss G, Goebel G, Tilg H, **Kaser S** (2017) Fat-enriched rather than high-fructose diets promote whitening of adipose tissue in a sex-dependent manner. **J Nutr Biochem**. 49:22-29
3. Dobner J, **Kaser S** (2018). Body mass index and the risk of infection - from underweight to obesity. **Clin Microbiol Infect**. 24(1):24-28

4. Thöni V, Pfister A, Melmer A, Enrich B, Salzmann K, **Kaser S**, Lamina C, Ebenbichler CF, Hackl H, Tilg H, Moschen AR. Dynamics of Bile Acid Profiles, GLP-1, and FGF19 After Laparoscopic Gastric Banding (2017). **J Clin Endocrinol Metab.**102(8):2974-2984
5. Ruffinatscha K, Radlinger B, Dobner J, Folie S, Bon C, Profanter E, Röss C, Salzmann K, Staudacher G, Tilg H, **Kaser S** (2017). Dipeptidyl peptidase-4 impairs insulin signalling and promotes lipid accumulation in hepatocytes. **Biochem Biophys Res Comm**, 485(2):366-37
6. Röss C, Moschen AR, Thoeni V, Ebenbichler CF, Weiss H, Molnar C, Weiss G, Tilg H, **Kaser S** (2017). Effect of weight loss on heme-oxygenase 1 tissue expression. **Diabetes & Metabolism.** 43:389-391
7. Wieser V, Adolph TE, Grander C, Grabherr F, Enrich B, Moser P, Moschen AR, **Kaser S**, Tilg H (2018). Adipose type I interferon signalling protects against metabolic dysfunction. **Gut**, 67:157-165
8. Röss C, **Kaser S** (2016) Mechanisms of intrahepatic triglyceride accumulation. **World J Gastroenterol**, 22(4): 1664-73
9. **Kaser S**, Resl M (2016) Maturity onset diabetes of the young (MODY) – Screening, Diagnostik und Therapie. **Wien Klin Wochenschrift**, 128:S2:S204-7
10. Lechleitner M, Hoppichler F, **Kaser S** (2016) Autoimmune diseases in type 1 diabetes. **Wien Klin Wochenschrift**, 128:S2:S201-3
11. Clodi M, Abrahamian H, Drexel H, Fasching P, Föger B, Francesconi C, Hoppichler F, **Kaser S**, Kautzky-Willer A, Lechleitner M, Ludviik B, Prager R, Fröhlich-Reiterer E, Roden M, Säly C, Schernthaner G, Sourij H, Toplak H, Wascher TC, Weitgasser R (2016) Antihyperglycemic treatment guidelines for diabetes mellitus type 2. **Wien Klin Wochenschrift**, 128:S2:S45-53
12. Röss C, Maeser PA, Tschoner A, Loacker L, Salzmann K, Staudacher G, Melmer A, Zoller H, Vogel W, Griesmacher An, Tilg H, Graziadei I, **Kaser S** (2014). Serum prolactin in advanced chronic liver disease. **Horm Metab Res.** 46(11): 800-3
13. Poelzl G, Trenkler C, Kliebhan J, Wuerntinger P, Seger C, **Kaser S**, Mayer G, Pirklbauer M, Ulmer H, Griesmacher A (2014). FGF23 is associated with disease severity and prognosis in chronic heart failure. **Eur J Clin Invest.** 44(12):1150-8
14. Moschen AR, Wieser V, Gerner RR, Bichler A, Enrich B, Moser P, Ebenbichler CF, **Kaser S**, Tilg H (2013). Adipose tissue and liver expression of SIRT1, 3, and 6 increase after extensive weight loss in morbid obesity. **J Hepatol**; 59:1315-22.
15. Moschen AR, **Kaser S**, Tilg H (2013) Non-alcoholic steatohepatitis: a microbiota-driven disease. **Trends Endocrinol Metab.**;24(11):537-45.
16. Al-Zoairy R, Röss C, Tschoner A, **Kaser S**, Ebenbichler C (2013). The effects of psychotropic drugs on the regulation of glucose metabolism. *Curr Diabetes Rev*; 9(5):362-70.
17. Tschoner A, Sturm W, Gelsinger C, Röss C, Laimer M, Engl J, Laimer E, Muehlmann G, Mittermair R, **Kaser S**, Tilg H, and CF Ebenbichler (2013). Long-term effects of pronounced weight loss after bariatric surgery on functional and structural markers of atherosclerosis. **Obesity.** 21(10):1960-5
18. Melmer A, Lamina C, Tschoner A, Röss C, **Kaser S**, Laimer M, Sandhofer A, Paulweber B, Ebenbichler CF (2013). Body Adiposity Index and other indexes of body composition in the SAPHIR study: association with cardiovascular risk factors, **Obesity** 21(4): 775-81