

Jonas Thue Treebak
Associate Professor
Novo Nordisk Foundation Center for Basic Metabolic Research
Postal address:
Blegdamsvej 3B, 7.7.46
DK-2200 Copenhagen N
Maersk Building
Denmark
Email: jttreebak@sund.ku.dk
Mobile: +45 24 80 53 98
Web address: <http://metabol.ku.dk>
Web: <http://cbmr.ku.dk>



Qualifications

Master of Science, University of Copenhagen

Award Date: 30 Nov 2004

PhD, University of Copenhagen

Award Date: 27 Nov 2009

Employment

Associate Professor

Treebak Group

København N.

1 May 2006 → nu

Research outputs

Impaired skeletal muscle regeneration in diabetes: From cellular and molecular mechanisms to novel treatments

Espino Gonzalez, Ever, Dalbram, E., Mounier, R., Gondin, J., Farup, J., Jessen, N. & Treebak, Jonas Thue, 7 Mar 2024, (E-pub ahead of print) In: *Cell Metabolism*.

Effect of resveratrol on insulin action in primary myotubes from lean individuals and individuals with severe obesity

Park, S., Jevtovic, F., Krassovskaia, P. M., Chaves, A. B., Zheng, D., Treebak, Jonas Thue & Houmard, J. A., 2024, In: *American Journal of Physiology - Endocrinology and Metabolism*. 326, 3, p. E398-E406 9 p.

Metabolic plasticity and obesity-associated changes in diurnal postexercise metabolism in mice

Pendergrast, L. A., Ashcroft, Stephen Paul, Ehrlich, Amy M, Treebak, Jonas Thue, Krook, A., Dollet, L. & Zierath, Juleen R, 2024, In: *Metabolism: Clinical and Experimental*. 155, 12 p., 155834.

Trigonelline is an NAD⁺ precursor that improves muscle function during ageing and is reduced in human sarcopenia

Membrez, M., Migliavacca, E., Christen, S., Yaku, K., Trieu, J., Lee, A. K., Morandini, F., Giner, M. P., Stiner, J., Makarov, M. V., Garratt, E. S., Vasiloglou, M. F., Chanvillard, L., Dalbram, E., Ehrlich, A. M., Sanchez-Garcia, J. L., Canto, C., Karagounis, L. G., Treebak, J. T., Migaud, M. E. & 15 others, Heshmat, R., Razi, F., Karnani, N., Ostovar, A., Farzadfar, F., Tay, S. K. H., Sanders, M. J., Lillycrop, K. A., Godfrey, K. M., Nakagawa, T., Moco, S., Koopman, R., Lynch, G. S., Sorrentino, V. & Feige, J. N., 2024, In: *Nature Metabolism*. 6, 3, p. 433–447

NAMPT-dependent NAD⁺ biosynthesis controls circadian metabolism in a tissue-specific manner

Basse, A. L., Nielsen, K. N., Karavaeva, Iuliia, Ingerslev, L. R., Ma, Tao, Havelund, J. F., Nielsen, Thomas Svava, Frost, M., Peics, J., Kellezi, Emilie Dalbram, Dall, M., Zierath, Juleen R, Barrès, Romain, Færgeman, N. J., Treebak, Jonas Thue & Gerhart-Hines, Zach, 2023, In: *Proceedings of the National Academy of Sciences of the United States of America*. 120, 14, e2220102120.

Oral supplementation of nicotinamide riboside alters intestinal microbial composition in rats and mice, but not humans

Peluso, A. A., Lundgaard, A. T., Babaei, P., Mousovich-Neto, F., Rocha, A. L., Damgaard, M. V., Bak, E. G., Gnanasekaran, T., Døllerup, O. L., Trammell, S. A. J., Nielsen, T. S., Kern, T., Abild, C. B., Sulek, K., Ma, T., Gerhart-Hines, Z., Gillum, M. P., Arumugam, M., Ørskov, C., McCloskey, D. & 4 others, Jessen, N., Herrgård, M. J., Mori, M. A. S. & Treebak, Jonas Thue, 2023, In: *npj Aging*. 9, 21 p., 7.

PICK1-Deficient Mice Maintain Their Glucose Tolerance During Diet-Induced Obesity

Backe, M. B., Andersen, Rita Chan, Jensen, M., Jin, C., Hundahl, C., Dmytriyeva, O., Treebak, Jonas Thue, Hansen, J. B., Gerhart-Hines, Zach, Madsen, Kenneth Lindegaard & Holst, Birgitte, 2023, In: Journal of the endocrine society. 7, 6, p. 1-13 bvad057.

Protocol to assess arteriovenous differences across the liver and hindlimb muscles in mice following treadmill exercise

Ashcroft, Stephen Paul, Jepsen, Sara Lind, Ehrlich, Amy M, Treebak, Jonas Thue, Holst, Jens Juul & Zierath, Juleen R, 2023, In: STAR Protocols. 4, 1, 11 p., 101985.

ROS-induced ribosome impairment underlies ZAK α -mediated metabolic decline in obesity and aging

Snieckute, G., Ryder, L., Vind, A. C., Wu, Z., Arendrup, F. S., Stoneley, M., Chamois, S., Martinez-Val, A., Leleu, M., Dreos, R., Russell, A., Gay, D. M., Genzor, A. V., Choi, B. S-Y., Basse, A. L., Sass, F., Dall, M., Dollet, L. C. M., Blasius, M., Willis, A. E. & 10 others, Lund, Anders H., Treebak, Jonas Thue, Olsen, Jesper Velgaard, Poulsen, Steen Seier, Pownall, M. E., Jensen, Benjamin Anderschou Holbeck, Clemmensen, Christoffer, Gerhart-Hines, Zach, Gatfield, D. & Bekker-Jensen, Simon Holst, 2023, In: Science (New York, N.Y.). 382, 6675, 14 p., eadf3208.

Regular exercise effectively protects against the aging-associated decline in skeletal muscle NAD content

Chubanava, Sabina & Treebak, Jonas Thue, 2023, In: Experimental Gerontology. 173, 112109.

Seasonal light hours modulate peripheral clocks and energy metabolism in mice

Small, Lewin Barkla, Lundell, L. S., Iversen, Jo Frøkjær, Ehrlich, Amy M, Dall, M., Basse, A. L., Kellezi, Emilie Dalbram, Hansen, Ann Normann, Treebak, Jonas Thue, Barrès, Romain & Zierath, Juleen R, 2023, In: Cell Metabolism. 35, 10, p. 1722-1735.e5 20 p.

Sleep-Time eating boosts exercise endurance

Trebak, Jonas Thue, 2023, In: Life Metabolism. 2, 5, 2 p., load029.

TBC1D4-S711 controls skeletal muscle insulin sensitization after exercise and contraction

Kjøbsted, Rasmus, Kristensen, Jonas Møller, Eskesen, N. O., Kido, K., Fjorder, Klara, Damgaard, D. F., Larsen, Jeppe Kjærgaard, Andersen, Nicoline Resen, Birk, Jesper Bratz, Gudiksen, Anders, Treebak, Jonas Thue, Schjerling, Peter, Pilegaard, Henriette & Wojtaszewski, Jørgen F P, 2023, In: Diabetes. 72, 7, p. 857-871 15 p.

Time of day determines postexercise metabolism in mouse adipose tissue

Pendergrast, L. A., Lundell, L. S., Ehrlich, Amy M, Ashcroft, Stephen Paul, Schönke, M., Basse, A. L., Krook, A., Treebak, Jonas Thue, Dollet, L. & Zierath, Juleen R, 2023, In: Proceedings of the National Academy of Sciences of the United States of America. 120, 8, e2218510120.

What is really known about the effects of nicotinamide riboside supplementation in humans

Damgaard, Mads Vargas & Treebak, Jonas Thue, 2023, In: Science Advances. 9, 29, 12 p., eadi4862.

A randomized placebo-controlled trial of nicotinamide riboside and pterostilbene supplementation in experimental muscle injury in elderly individuals

Jensen, J. B., Døllerup, O. L., Møller, A. B., Billeskov, T. B., Kellezi, Emilie Dalbram, Chubanava, Sabina, Damgaard, Mads Vargas, Dellinger, R. W., Trošt, K., Moritz, Thomas, Ringgaard, S., Møller, N., Treebak, Jonas Thue, Farup, J. & Jessen, N., 2022, In: JCI insight. 7, 19, 15 p., e158314.

Atlas of exercise metabolism reveals time-dependent signatures of metabolic homeostasis

Sato, S., Dyar, K. A., Treebak, J. T., Jepsen, S. L., Ehrlich, A. M., Ashcroft, S. P., Trost, K., Kunzke, T., Prade, V. M., Small, L., Basse, A. L., Schönke, M., Chen, S., Samad, M., Baldi, P., Barrès, R., Walch, A., Moritz, T., Holst, J. J., Lutter, D. & 2 others, Zierath, Juleen R & Sassone-Corsi, P., 2022, In: Cell Metabolism. 34, 2, p. 329-345.e8 26 p.

Beta-Hydroxybutyrate Suppresses Hepatic Production of the Ghrelin Receptor Antagonist LEAP2

Holm, Stephanie Kjærulff, Husted, Anna Sofie, Skov, Louise Julie, Morville, T. H., Hagemann, C. A., Jorsal, T., Dall, M., Jakobsen, A., Klein, A. B., Treebak, Jonas Thue, Knop, Filip Krag, Schwartz, Thue W., Clemmensen, Christoffer & Holst, Birgitte, 2022, In: Endocrinology. 163, 6, 13 p., bqac038.

Comparative analysis of oral and intraperitoneal glucose tolerance tests in mice

Small, Lewin Barkla, Ehrlich, Amy M, Iversen, Jo Frøkjær, Ashcroft, Stephen Paul, Trošt, K., Moritz, Thomas, Hartmann, Bolette, Holst, Jens Juul, Treebak, Jonas Thue, Zierath, Juleen R & Barrès, Romain, 2022, In: *Molecular Metabolism*. 57, 8 p., 101440.

Dietary Protein Restriction Improves Metabolic Dysfunction in Patients with Metabolic Syndrome in a Randomized, Controlled Trial

Ferraz-Bannitz, R., Beraldo, R. A., Peluso, A., Dall, M., Babaei, P., Foglietti, R. C., Martins, L. M., Gomes, P. M., Marchini, J. S., Miguel Suen, V. M., Conti de Freitas, L. C., Navegantes, L. C., Pretti, M. A. M., Boroni, M., Treebak, Jonas Thue, Mori, M. A., Foss, M. C. & Foss-Freitas, M. C., 2022, In: *Nutrients*. 14, 13, 18 p., 2670.

Dynamic interplay between Afadin S1795 phosphorylation and diet regulates glucose homeostasis in obese mice

Tozzi, M., Brown, E. L., Petersen, P. S., Lundh, M., Isidor, Marie Sophie, Plucinska, Kaja, Nielsen, Thomas Svava, Agueda Oyarzabal, Marina, Small, Lewin Barkla, Treebak, Jonas Thue & Emanuelli, Brice, 2022, In: *The Journal of Physiology*. 600, 4, p. 885-902

Ellagic acid prevents myocardial infarction-induced left ventricular diastolic dysfunction in ovariectomized rats

Costa, B. M., Mengal, V., Brasil, G. A., Peluso, A. A., Treebak, Jonas Thue, Endlich, P. W., de Almeida, S. A. & de Abreu, G. R., 2022, In: *Journal of Nutritional Biochemistry*. 105, 9 p., 108990.

Exercise effects on γ 3-AMPK activity, Akt substrate of 160 kDa phosphorylation, and glucose uptake in muscle of normal and insulin-resistant female rats

Wang, H., Arias, E. B., Treebak, Jonas Thue & Cartee, G. D., 2022, In: *Journal of Applied Physiology*. 132, 1, p. 140-153
14 p.

Fasting potentiates insulin-mediated glucose uptake in rested and prior-contracted rat skeletal muscle

Kido, K., Egawa, T., Watanabe, S., Kawanaka, K., Treebak, Jonas Thue & Hayashi, T., 2022, In: *American Journal of Physiology - Endocrinology and Metabolism*. 322, 5, p. E425-E435

From trainee to trainer: lessons Learned through implementation of a dual-catheter model in mice

Nielsen, Thomas Svava & Treebak, Jonas Thue, 2022, In: *Laboratory Animals*. 56, S1, p. 105 1 p., S5C1.2.

Glutamine Regulates Skeletal Muscle Immunometabolism in Type 2 Diabetes

Dollet, L., Kuefner, M., Caria, E., Rizo-Roca, D., Pendergrast, L., Abdelmoez, A. M., Karlsson, H. K., Kellezi, Emilie Dalbram, Treebak, Jonas Thue, Harada, J., Näslund, E., Rydén, M., Zierath, Juleen R, Pillon, N. J. & Krook, A., 2022, In: *Diabetes*. 71, 4, p. 624-636

Intravenous nicotinamide riboside elevates mouse skeletal muscle NAD⁺ without impacting respiratory capacity or insulin sensitivity

Damgaard, Mads Vargas, Nielsen, Thomas Svava, Basse, A. L., Chubanava, Sabina, Trost, K., Moritz, Thomas, Dellinger, R. W., Larsen, Steen & Treebak, Jonas Thue, 2022, In: *iScience*. 25, 2, 21 p., 103863.

MicroRNAs in non-alcoholic fatty liver disease: Progress and perspectives

Hochreuter, Mette Yde, Dall, M., Treebak, Jonas Thue & Barrès, Romain, 2022, In: *Molecular Metabolism*. 65, 17 p., 101581.

NAD⁺ and NAFLD - Caution, Causality, and Careful Optimism

Dall, M., Hassing, Anna Skab & Treebak, Jonas Thue, 2022, In: *The Journal of Physiology*. 600, 5, p. 1135-1154

Protocol for qPCR analysis that corrects for cDNA amplification efficiency

Damgaard, Mads Vargas & Treebak, Jonas Thue, 2022, In: *STAR Protocols*. 3, 3, 11 p., 101515.

Pterostilbene Fails to Rescue Insulin Secretion and Sensitivity in Multiple Murine Models of Diabetes

Damgaard, Mads Vargas, Jepsen, Sara Lind, Ashcroft, Stephen Paul, Holst, Jens Juul & Treebak, Jonas Thue, 2022, In: *Nutrients*. 14, 18, 11 p., 3741.

***Nampt* controls skeletal muscle development by maintaining Ca²⁺ homeostasis and mitochondrial integrity**

Basse, A. L., Agerholm, M., Farup, J., Dalbram, E., Nielsen, J., Ørtenblad, N., Altıntaş, A., Ehrlich, A. M., Krag, T., Bruzzone, S., Dall, M., de Guia, R. M., Jensen, J. B., Møller, A. B., Karlsen, A., Kjær, M., Barrès, R., Vissing, J., Larsen, S., Jessen, N. & 1 others, Treebak, Jonas Thue, 2021, In: *Molecular Metabolism*. 53, 101271.

Ablation of *Nampt* in AgRP neurons leads to neurodegeneration and impairs fasting- and ghrelin-mediated food intake

de Guia, R. M., Hassing, Anna Skab, Ma, Tao, Plucinska, Kaja, Holst, Birgitte, Gerhart-Hines, Zach, Emanuelli, Brice & Treebak, Jonas Thue, 2021, In: *F A S E B Journal*. 35, 5, e21450.

Age-dependent transition from islet insulin hypersecretion to hyposecretion in mice with the long QT-syndrome loss-of-function mutation *Kcnq1-A340V*

Lubberding, Anniek Frederike, Zhang, J., Lundh, M., Nielsen, Thomas Svava, Søndergaard, M. S., Villadsen, M., Skovhøj, E. Z., Boer, G. A., Hansen, J. B., Thomsen, Morten Bækgaard, Treebak, Jonas Thue, Holst, Jens Juul, Kanters, Jørgen K., Mandrup-Poulsen, Thomas, Jespersen, Thomas, Emanuelli, Brice & Torekov, Signe Sørensen, 2021, In: *Scientific Reports*. 11, 1, 14 p., 12253.

Age-dependent decline of NAD⁺ - universal truth or confounded consensus?

Peluso, A. A., Damgaard, Mads Vargas, Mori, M. A. S. & Treebak, Jonas Thue, 2021, In: *Nutrients*. 14, 1, 101.

Compound- and fiber type-selective requirement of AMPK γ 3 for insulin-independent glucose uptake in skeletal muscle

Rhein, P., Desjardins, E. M., Rong, P., Ahwazi, D., Bonhoure, N., Stolte, J., Santos, M. D., Ovens, A. J., Ehrlich, A. M., Sanchez Garcia, J. L., Ouyang, Q., Yabut, J. M., Kjolby, M., Membrez, M., Jessen, N., Oakhill, J. S., Treebak, J. T., Maire, P., Scott, J. W., Sanders, M. J. & 4 others, Descombes, P., Chen, S., Steinberg, G. R. & Sakamoto, Kei, 2021, In: *Molecular Metabolism*. 51, 18 p., 101228.

Discovery of thymosin β 4 as a human α keratin and growth factor

Gonzalez-Franquesa, A., Stocks, Ben Nicholas, Borg, M. L., Kuefner, M., Kellezi, Emilie Dalbram, Nielsen, Thomas Svava, Agrawal, A., Pankratova, Stanislava, Chibalin, A. V., Karlsson, H. K. R., Gheibi, S., Bjørnholm, M., Jørgensen, Niklas Rye, Clemmensen, Christoffer, Treebak, Jonas Thue, Hostrup, Morten, Krook, A., Zierath, Juleen R & Deshmukh, Atul Shahaji, 2021, In: *American Journal of Physiology: Cell Physiology*. 321, 5, p. C770-C778 9 p.

Disrupted circadian oscillations in type 2 diabetes are linked to altered rhythmic mitochondrial metabolism in skeletal muscle

Gabriel, B. M., Altıntaş, Ali, Smith, J. A. B., Sardon-Puig, L., Zhang, X., Basse, A. L., Laker, R. C., Gao, H., Liu, Z., Dollet, L., Treebak, Jonas Thue, Zorzano, A., Huo, Z., Rydén, M., Lanner, J. T., Esser, K. A., Barrès, Romain, Pilon, N. J., Krook, A. & Zierath, Juleen R, 2021, In: *Science Advances*. 7, 43, 20 p., eabi9654.

Hepatocyte-specific perturbation of NAD⁺ biosynthetic pathways in mice induces reversible nonalcoholic steatohepatitis-like phenotypes

Dall, M., Hassing, Anna Skab, Niu, Lili, Nielsen, Thomas Svava, Ingerslev, L. R., Sulek, K., Trammell, Sam, Gillum, M. P., Barrès, Romain, Larsen, Steen, Poulsen, Steen Seier, Mann, Matthias, Ørskov, Cathrine & Treebak, Jonas Thue, 2021, In: *Journal of Biological Chemistry*. 297, 6, 26 p., 101388.

Investigation of the specificity and mechanism of action of the ULK1/AMPK inhibitor SBI-0206965

Ahwazi, Danial, Neopane, K., Markby, G. R., Kopietz, F., Ovens, A. J., Dall, M., Hassing, Anna Skab, Gräsle, P., Alshuweishi, Y., Treebak, Jonas Thue, Salt, I. P., Göransson, O., Zeqiraj, E., Scott, J. W. & Sakamoto, Kei, 2021, In: *Biochemical Journal*. 478, 15, p. 2977-2997 21 p.

Lipolysis drives expression of the constitutively active receptor GPR3 to induce adipose thermogenesis

Sveidahl Johansen, O., Ma, T., Hansen, J. B., Markussen, L. K., Schreiber, R., Reverte-Salisa, L., Dong, H., Christensen, D. P., Sun, W., Gnad, T., Karavaeva, I., Nielsen, T. S., Kooijman, S., Cero, C., Dmytriyeva, O., Shen, Y., Razzoli, M., O'Brien, S. L., Kuipers, E. N., Nielsen, C. H. & 31 others, Orchard, W., Willemsen, N., Jespersen, N. Z., Lundh, M., Sustarsic, E. G., Hallgren, C. M., Frost, M., McGonigle, S., Isidor, Marie Sophie, Broholm, C., Pedersen, Oluf Borbye, Hansen, Jacob B., Grarup, Niels, Hansen, Torben, Kjær, Andreas, Granneman, J. G., Babu, M. M., Calebiro, D., Nielsen, S., Rydén, M., Soccio, R., Rensen, P. C. N., Treebak, Jonas Thue, Schwartz, Thue W., Emanuelli, Brice, Bartolomucci, A., Pfeifer, A., Zechner, R., Schéele, Camilla Charlotte Nielsen, Mandrup, S. & Gerhart-Hines, Z., 2021, In: *Cell*. 184, 13, p. 3502-3518 + 50 p.

Lysates of *Methylococcus capsulatus* Bath induce a lean-like microbiota, intestinal FoxP3⁺RORγt⁺IL-17⁺ Tregs and improve metabolism

Jensen, B. A. H., Holm, J. B., Larsen, I. S., von Burg, N., Derer, S., Sonne, S. B., Pærregaard, S. I., Damgaard, M. V., Indrelid, S. A., Rivollier, A., Agrinier, A. L., Sulek, K., Arnoldussen, Y. J., Fjære, E., Murette, A., Angell, I. L., Rudi, K., Treebak, J. T., Madsen, L., Åkesson, C. P. & 5 others, Agace, W., Sina, C., Kleiveland, C. R., Kristiansen, Karsten & Lea, T. E., 2021, In: Nature Communications. 12, 19 p., 1093.

Mass-spectrometry-based proteomics reveals mitochondrial supercomplexome plasticity

Gonzalez-Franquesa, A., Stocks, Ben Nicholas, Chubanava, Sabina, Hattel, H. B., Moreno Justicia, Roger, Peijs, Lone, Treebak, Jonas Thue, Zierath, Juleen R & Deshmukh, Atul Shahaji, 2021, In: Cell Reports. 35, 8, 20 p., 109180.

ARDD 2020: from aging mechanisms to interventions

Mkrtchyan, G. V., Abdelmohsen, K., Andreux, P., Bagdonaite, I., Barzilai, N., Brunak, S., Cabreiro, F., Cabo, R. D., Campisi, J., Cuervo, A. M., Demaria, M., Ewald, C. Y., Fang, E. F., Faragher, R., Ferrucci, L., Freund, A., Silva-García, C. G., Georgievskaya, A., Gladyshev, V. N., Glass, D. J. & 46 others, Gorbunova, V., Grey, A. D., He, W. W., Hoeijmakers, J., Hoffmann, Eva, Horvath, S., Houtkooper, R. H., Jensen, Majken Karoline, Jensen, M. B., Kane, A., Kassem, Moustapha Saad El-Deen, Keizer, P. D., Kennedy, B., Karsenty, G., Lamming, D. W., Lee, K. F., MacAulay, Nanna, Mamoshina, P., Mellon, J., Molenaars, M., Moskalev, A., Mund, Andreas, Niedernhofer, L., Osborne, Brenna, Pak, H. H., Parkhitko, A., Raimundo, N., Rando, T. A., Rasmussen, Lene Juel, Reis, C., Riedel, C. G., Franco-Romero, A., Schumacher, B., Sinclair, D. A., Suh, Y., Taub, P. R., Toiber, D., Treebak, Jonas Thue, Valenzano, D. R., Verdin, E., Vijg, J., Young, S., Zhang, L., Bakula, Daniela Janina, Zhavoronkov, A. & Scheibye-Knudsen, Morten, 2020, In: Aging. 12, 24, p. 24486-24503 18 p.

Dynamic changes in DICER levels in adipose tissue control metabolic adaptations to exercise

Brandão, B. B., Madsen, S., Rabiee, A., Oliverio, M., Ruiz, G. P., Ferrucci, D. L., Branquinho, J. L., Razolli, D., Pinto, S., Nielsen, T. S., Festuccia, W. T., Martins, A. S., Guerra, B. A., Knittel, T. L., Søgaard, D., Larsen, S., Helge, J. W., Brandauer, J., Velloso, L. A., Emanuelli, B. & 6 others, Kornfeld, J., Kahn, C. R., Vienberg, S. G., Zierath, Juleen R, Treebak, Jonas Thue & Mori, M. A., 2020, In: Proceedings of the National Academy of Sciences of the United States of America. 117, 38, p. 23932-23941

Fasting- and ghrelin-induced food intake is regulated by NAMPT in the hypothalamus

de Guia, R. M., Hassing, Anna Skab, Skov, Louise Julie, Ratner, C., Plucinska, Kaja, Madsen, S., Diep, T. A., dela Cruz, Gelo, Trammell, Sam, Sustarsic, E. G., Emanuelli, Brice, Gillum, M. P., Gerhart-Hines, Zach, Holst, Birgitte & Treebak, Jonas Thue, 2020, In: Acta Physiologica. 228, 4

Glucagon acutely regulates hepatic amino acid catabolism and the effect may be disturbed by steatosis

Winther-Sørensen, M., Galsgaard, K. D., Santos, A., Trammell, S. A. J., Sulek, K., Kuhre, R. E., Pedersen, J., Andersen, D. B., Hassing, A. S., Dall, M., Treebak, J. T., Gillum, M. P., Torekov, S. S., Windeløv, J. A., Hunt, J. E., Kjeldsen, S. A. S., Jepsen, S. L., Vasilopoulou, C. G., Knop, F. K., Ørskov, C. & 7 others, Werge, M. P., Bisgaard, Hanne Cathrine, Eriksen, P. L., Vilstrup, H., Gluud, Lise Lotte, Holst, Jens Juul & Albrechtsen, Nicolai Jacob Wewer, 2020, In: Molecular Metabolism. 42, 18 p., 101080.

Hepatic steatosis and glucagon resistance develop in parallel resulting in hyperglucagonaemia and hyperaminoacidaemia

Winther-Sørensen, Marie, Galsgaard, Katrine Douglas, Santos, A., Pedersen, J., Hassing, Anna Skab, Dall, M., Treebak, Jonas Thue, Kjeldsen, Sasha Alexandra Sampson, Knop, Filip Krag, Werge, M. P., Eriksen, P. L., Vilstrup, H., Gluud, Lise Lotte, Holst, Jens Juul & Albrechtsen, Nicolai Jacob Wewer, 2020, In: Diabetologia. 63, SUPPL 1, p. S71-S72 142.

Nicotinamide riboside does not alter mitochondrial respiration, content or morphology in skeletal muscle from obese and insulin resistant men

Dollerup, O. L., Chubanava, Sabina, Agerholm, M., Søndergård, S. D., Altıntaş, Ali, Møller, A. B., Høyer, K. F., Ringgaard, S., Stødkilde-Jørgensen, H., Lavery, G. G., Barrès, Romain, Larsen, Steen, Prats Gavaldà, Clara, Jessen, N. & Treebak, Jonas Thue, 2020, In: Journal of Physiology. 598, 4, p. 731-754

Effects of Nicotinamide Riboside on Endocrine Pancreatic Function and Incretin Hormones in Nondiabetic Men With Obesity

Dollerup, O. L., Trammell, Sam, Hartmann, Bolette, Holst, Jens Juul, Christensen, B., Møller, N., Gillum, M. P., Treebak, Jonas Thue & Jessen, N., 1 Nov 2019, In: The Journal of clinical endocrinology and metabolism. 104, 11, p. 5703-5714

ADAMTS9 regulates skeletal muscle insulin sensitivity through extracellular matrix alterations

Graae, A-S., Grarup, N., Ribel-Madsen, R., Lystbæk, S. H., Boesgaard, T., Staiger, H., Fritsche, A., Wellner, N., Sulek, K., Kjølby, M. F., Backe, M. B., Chubanova, S., Prats, C., Serup, A. K. L., Birk, J. B., Dubail, J., Gillberg, L., Vienberg, S. G., Nykjær, A., Kiens, B. & 10 others, Wojtaszewski, Jørgen F P, Larsen, Steen, Apte, S. S., Häring, H., Vaag, A., Zethelius, B., Pedersen, Oluf Borbye, Treebak, Jonas Thue, Hansen, Torben & Holst, Birgitte, 2019, In: *Diabetes*. 68, 3, p. 502-514

Aerobic and resistance exercise training reverses age-dependent decline in NAD(+) salvage capacity in human skeletal muscle

de Guia, R. M., Agerholm, M., Nielsen, Thomas Svava, Consitt, L. A., Sogaard, D., Helge, Jørn Wulff, Larsen, Steen, Brandauer, J., Houmard, J. A. & Treebak, Jonas Thue, 2019, In: *Physiological Reports*. 7, 12, 15 p., e14139.

Assessment of mouse liver [1-¹³C]pyruvate metabolism by dynamic hyperpolarized MRS

Faarkrog Høyer, K., Laustsen, C., Ringgaard, S., Qi, H., Mariager, C. Ø., Nielsen, Thomas Svava, Sundekilde, U. K., Treebak, Jonas Thue, Jessen, N. & Stødkilde-Jørgensen, H., 2019, In: *Journal of Endocrinology*. 242, 3, p. 251-260 9 p.

Cytosolic ROS production by NADPH oxidase 2 regulates muscle glucose uptake during exercise

Henriquez-Olguín, Carlos, Knudsen, Jonas Roland, Raun, Steffen Henning, Li, Z., Kellezi, Emilie Dalbram, Treebak, Jonas Thue, Sylow, Lykke, Holmdahl, R., Richter, Erik A., Jaimovich, E. & Jensen, Thomas Elbenhardt, 2019, In: *Nature Communications*. 10, 11 p., 4623.

Electrical pulse stimulation induces differential responses in insulin action in myotubes from severely obese individuals

Park, S., Turner, K. D., Zheng, D., Brault, J. J., Zou, K., Chaves, A. B., Nielsen, Thomas Svava, Tanner, C. J., Treebak, Jonas Thue & Houmard, J. A., 2019, In: *The Journal of Physiology*. 597, 2, p. 449-466

Fiber type-specific effects of acute exercise on insulin-stimulated AS160 phosphorylation in insulin-resistant rat skeletal muscle

Pataky, M. W., Van Acker, S. L., Dhingra, R., Freeburg, M. M., Arias, E. B., Oki, K., Wang, H., Treebak, Jonas Thue & Cartee, G. D., 2019, In: *American Journal of Physiology: Endocrinology and Metabolism*. 317, 6, p. E984-E998

Genes controlling the activation of natural killer lymphocytes are epigenetically remodeled in intestinal cells from germ-free mice

Poupeau, A., Garde, C., Sulek, K., Citirikaya, K., Treebak, Jonas Thue, Arumugam, Mani, Simar, D., Olofsson, L. E., Bäckhed, F. & Barrès, Romain, 2019, In: *F A S E B Journal*. 33, 2, p. 2719-2731 13 p.

Mitochondrial function in liver cells is resistant to perturbations in NAD⁺ salvage capacity

Dall, M., Trammell, Sam, Asping, M., Hassing, Anna Skab, Agerholm, M., Vienberg, S. G., Gillum, M. P., Larsen, Steen & Treebak, Jonas Thue, 2019, In: *The Journal of Biological Chemistry*. 294, 36, p. 13304-13326 23 p.

The aromatic amino acid sensor GPR142 controls metabolism through balanced regulation of pancreatic and gut hormones

Rudenko, Olga, Shang, J., Munk, A., Ekberg, J. P., Petersen, N., Engelstoft, M. S., Egerod, Kristoffer Lihme, Hjorth, Siv Annegrethe, Wu, M., Feng, Y., Zhou, Y., Mokrosinski, J., Thams, P., Reimann, F., Gribble, F., Rehfeld, Jens Frederik, Holst, Jens Juul, Treebak, Jonas Thue, Howard, A. D. & Schwartz, Thue W., 2019, In: *Molecular Metabolism*. 19, p. 49-64 6 p.

Time of Exercise Specifies the Impact on Muscle Metabolic Pathways and Systemic Energy Homeostasis

Sato, S., Basse, A. L., Schönke, M., Chen, S., Samad, M., Altıntaş, Ali, Laker, R. C., Kellezi, Emilie Dalbram, Barrès, Romain, Baldi, P., Treebak, Jonas Thue, Zierath, Juleen R & Sassone-Corsi, P., 2019, In: *Cell Metabolism*. 30, 1, p. 92-110.e4 18 p.

Underpowered or negative? A crucial distinction

Dollerup, O. L., Treebak, Jonas Thue & Jessen, N., 2019, In: *Diabetologia*. 62, 6, p. 1094-1095 2 p.

Voluntary wheel running in the late dark phase ameliorates diet-induced obesity in mice without altering insulin action
Kellezi, Emilie Dalbram, Basse, A. L., Zierath, Juleen R & Treebak, Jonas Thue, 2019, In: Journal of Applied Physiology. 126, 4, p. 993-1005 13 p.

NAMPT-mediated NAD⁺ biosynthesis is indispensable for adipose tissue plasticity and development of obesity
Nielsen, K. N., Peics, J., Ma, Tao, Karavaeva, Iuliia, Dall, M., Chubanava, Sabina, Basse, A. L., Dmytriyeva, O., Treebak, Jonas Thue & Gerhart-Hines, Zach, May 2018, In: Molecular Metabolism. 11, p. 178-188 11 p.

A randomized placebo-controlled clinical trial of nicotinamide riboside in obese men: safety, insulin-sensitivity, and lipid-mobilizing effects
Dollerup, O. L., Christensen, B., Svart, M., Schmidt, M. S., Sulek, K., Ringgaard, S., Stødkilde-Jørgensen, H., Møller, N., Brenner, C., Treebak, Jonas Thue & Jessen, N., 2018, In: American Journal of Clinical Nutrition. 108, 2, p. 343-353 11 p.

AMPK in skeletal muscle function and metabolism
Kjøbsted, Rasmus, Hingst, J. R., Fentz, J., Foretz, M., Sanz, M., Pehmøller, C., Shum, M., Marette, A., Mounier, R., Treebak, Jonas Thue, Wojtaszewski, Jørgen F P, Viollet, B. & Lantier, L., 2018, In: F A S E B Journal. 32, 4, p. 1741-1777 37 p.

Age-dependent alterations of glucose clearance and homeostasis are temporally separated and modulated by dietary fat
Damgaard, Mads Vargas, Pærregaard, S. I., Søgaard, I., Andersen, M. A., Paulson, J. N., Treebak, Jonas Thue, Sina, C., Holm, J. B., Kristiansen, Karsten & Jensen, Benjamin Anderschou Holbech, 2018, In: Journal of Nutritional Biochemistry. 54, p. 66-76 11 p.

Hepatic NAD⁺ levels and NAMPT abundance are unaffected during prolonged high-fat diet consumption in C57BL/6J BomTac mice
Dall, M., Penke, M., Sulek, K., Matz-Soja, M., Holst, Birgitte, Garten, A., Kiess, W. & Treebak, Jonas Thue, 2018, In: Molecular and Cellular Endocrinology. 473, p. 245-256 12 p.

Perturbations in the p53/miR-34a/SIRT1 pathway in the R6/2 Huntington's disease model
Reynolds, R. H., Petersen, M. H., Willert, C. W., Heinrich, M., Nymann, N., Dall, M., Treebak, Jonas Thue, Björkqvist, M., Silahatoglu, Asli, Hasholt, Lis Frydenreich & Nørremølle, Anne, 2018, In: Molecular and Cellular Neuroscience. 88, p. 118-129

Perturbations of NAD⁺ salvage systems impact mitochondrial function and energy homeostasis in mouse myoblasts and intact skeletal muscle
Andersen, M. A., Dall, M., Jensen, Benjamin Anderschou Holbech, Prats Gavaldà, Clara, Madsen, S., Basse, A. L., Graae, A., Risis, S., Goldenbaum, J., Quistorff, B., Larsen, Steen, Vienberg, S. G. & Treebak, Jonas Thue, 2018, In: American Journal of Physiology: Endocrinology and Metabolism. 314, 4, p. E377-E395 19 p.

Sevoflurane Impairs Insulin Secretion and Tissue-Specific Glucose Uptake *In Vivo*
Høyer, K. F., Nielsen, Thomas Svava, Risis, S., Treebak, Jonas Thue & Jessen, N., 2018, In: Basic & Clinical Pharmacology & Toxicology. 123, 6, p. 732-738

Skeletal Muscle Insulin Sensitivity Show Circadian Rhythmicity Which Is Independent of Exercise Training Status
Basse, A. L., Kellezi, Emilie Dalbram, Larsson, L., Gerhart-Hines, Zach, Zierath, Juleen R & Treebak, Jonas Thue, 2018, In: Frontiers in Physiology. 9, p. 1-12 12 p., 1198.

Skeletal muscle O-GlcNAc transferase is important for muscle energy homeostasis and whole-body insulin sensitivity
Shi, H., Munk, A., Nielsen, T. S., Daughtry, M. R., Larsson, L., Li, S., Høyer, K. F., Geisler, H. W., Sulek, K., Kjøbsted, R., Fisher, T., Andersen, M. M., Shen, Z., Hansen, U. K., England, E. M., Cheng, Z., Højlund, K., Wojtaszewski, J., Yang, X., Hulver, M. W. & 3 others, Helm, R. F., Treebak, Jonas Thue & Gerrard, D. E., 2018, In: Molecular Metabolism. 11, p. 160-177 18 p.

Enhanced muscle insulin sensitivity after contraction/exercise is mediated by AMPK
Kjøbsted, Rasmus, Munk-Hansen, N., Birk, Jesper Bratz, Foretz, M., Viollet, B., Bjørnholm, M., Zierath, Juleen R, Treebak, Jonas Thue & Wojtaszewski, Jørgen F P, 2017, In: Diabetes. 66, 3, p. 598-612 15 p.

Dietary fat drives whole-body insulin resistance and promotes intestinal inflammation independent of body weight gain

Jensen, Benjamin Anderschou Holbech, Nielsen, Thomas Svava, Fritzen, Andreas Mæchel, Holm, J. B., Fjære, E., Serup, A. K. L., Borkowski, K., Risis, S., Pærregaard, S. I., Søgaard, I., Poupeau, A. A. G., Poulsen, M., Ma, Tao, Sina, C., Kiens, Bente, Madsen, L., Kristiansen, Karsten & Treebak, Jonas Thue, 2016, In: *Metabolism*. 65, 12, p. 1706-1719 14 p.

Regulation of autophagy in human skeletal muscle: effects of exercise, exercise training and insulin stimulation

Fritzen, Andreas Mæchel, Madsen, A. L. B., Kleinert, Maximilian, Treebak, Jonas Thue, Lundsgaard, Anne-Marie, Jensen, Thomas Elbenhardt, Richter, Erik A., Wojtaszewski, Jørgen F P, Kiens, Bente & Frøsig, C., 2016, In: *Journal of Physiology*. 594, 3, p. 745-761 17 p.

Role of AMP-activated protein kinase for regulating post-exercise insulin sensitivity

Kjøbsted, Rasmus, Wojtaszewski, Jørgen F P & Treebak, Jonas Thue, 2016, *AMP-activated Protein Kinase*. Cordero, M. D. & Viollet, B. (eds.). Springer, p. 81-126 46 p. (E X S, Vol. 107).

Deep proteomics of mouse skeletal muscle enables quantitation of protein isoforms, metabolic pathways and transcription factors

Deshmukh, Atul Shahaji, Murgia, M., Nagaraja, N., Treebak, Jonas Thue, Cox, J. & Mann, Matthias, Apr 2015, In: *Molecular and Cellular Proteomics*. 14, 4, p. 841-853

AMP-activated protein kinase controls exercise training- and AICAR-induced increases in SIRT3 and MnSOD

Brandauer, J., Andersen, M. A., Kellezi, H., Risis, S., Frøsig, C., Vienberg, S. G. & Treebak, Jonas Thue, Mar 2015, In: *Frontiers in Physiology*. 6, 16 p., 85.

Biotin starvation causes mitochondrial protein hyperacetylation and partial rescue by the SIRT3-like deacetylase Hst4p

Madsen, C. T., Sylvestersen, K. B., Young, C., Buch-Larsen, Sara Charlotte, Poulsen, J. W., Andersen, M. A., Palmqvist, E. A., Hey-Mogensen, M., Jensen, P. B., Treebak, Jonas Thue, Lisby, Michael & Nielsen, Michael Lund, 2015, In: *Nature Communications*. 6, 12 p., 7726.

Hepatic NAD salvage pathway is enhanced in mice on a high-fat diet

Penke, M., Larsen, P. S., Schuster, S., Dall, M., Jensen, Benjamin Anderschou Holbech, Gorski, T., Meusel, A., Richter, S., Vienberg, S. G., Treebak, Jonas Thue, Kiess, W. & Garten, A., 2015, In: *Molecular and Cellular Endocrinology*. 412, p. 65-72 8 p.

Prior AICAR stimulation increases insulin sensitivity in mouse skeletal muscle in an AMPK-dependent manner

Kjøbsted, Rasmus, Treebak, Jonas Thue, Fentz, J., Lantier, L., Viollet, B., Birk, Jesper Bratz, Schjerling, Peter, Bjørnholm, M., Zierath, Juleen R & Wojtaszewski, Jørgen F P, 2015, In: *Diabetes*. 64, 6, p. 2042-2055 14 p.

A common Greenlandic *TBC1D4* variant confers muscle insulin resistance and type 2 diabetes

Moltke, I., Grarup, N., Jørgensen, M. E., Bjerregaard, P., Treebak, J. T., Fumagalli, M., Korneliussen, T. S., Andersen, M. A., Nielsen, T. S., Krarup, N. T., Gjesing, A. M. P., Zierath, J. R., Linneberg, A., Wu, X., Sun, G., Jin, X., Al-Aama, J., Wang, J., Borch-Johnsen, K., Pedersen, O. & 3 others, Nielsen, R., Albrechtsen, Anders & Hansen, Torben, 2014, In: *Nature*. 512, 7513, p. 190-193 4 p.

AMPK controls exercise endurance, mitochondrial oxidative capacity, and skeletal muscle integrity

Lantier, L., Fentz, J., Mounier, R., Leclerc, J., Treebak, Jonas Thue, Pehmøller, C. K., Sanz, N., Sakakibara, I., Saint-Amand, E., Rimbaud, S., Maire, P., Marette, A., Ventura-Clapier, R., Ferry, A., Wojtaszewski, Jørgen F P, Foretz, M. & Viollet, B., 2014, In: *F A S E B Journal*. 28, 7, p. 3211-3224 14 p.

Acute exercise and physiological insulin induce distinct phosphorylation signatures on TBC1D1 and TBC1D4 in human skeletal muscle

Trebak, Jonas Thue, Pehmøller, C., Kristensen, Jonas Møller, Kjøbsted, Rasmus, Birk, Jesper Bratz, Schjerling, Peter, Richter, Erik A., Goodyear, L. J. & Wojtaszewski, Jørgen F P, 2014, In: *Journal of Physiology*. 592, 2, p. 351-375 25 p.

GLUT4 and glycogen synthase are key players in bed rest-induced insulin resistance. *Diabetes* 2012;61:1090-1099
Bjensø, R. S., Ringholm, S., Kiilerich, K., Achmann-Andersen, N., Krogh-Madsen, Rikke, Guerra, B., Plomgaard, Peter
Stendahl, van Hall, Gerrit, Treebak, Jonas Thue, Saltin, B., Lundby, C., Calbet, J. A. L., Pilegaard, Henriette &
Wojtaszewski, Jørgen F P, 2014, In: *Diabetes*. 63, 9, 1 p., 3159.

Hepatic NAD Metabolism Is Dysregulated By an Excessive Supply of Lipids

Penke, M., Treebak, Jonas Thue, Schuster, S., Gorski, T., Garten, A. & Kiess, W., 2014, In: *Endocrine Reviews*.

Sustained AS160 and TBC1D1 phosphorylations in human skeletal muscle 30 minutes after a single bout of exercise

Vendelbo, M. H., Møller, A. B., Treebak, Jonas Thue, Gormsen, L. C., Goodyear, L. J., Wojtaszewski, Jørgen F P,
Jørgensen, J. O. L., Møller, N. & Jessen, N., 2014, In: *Journal of Applied Physiology*. 117, 3, p. 289-296 8 p.

Two weeks of metformin treatment induces AMPK dependent enhancement of insulin-stimulated glucose uptake in mouse soleus muscle

Kristensen, Jonas Møller, Treebak, Jonas Thue, Schjerling, Peter, Goodyear, L., Wojtaszewski, J. F. P. & Wojtaszewski,
Jørgen F P, 2014, In: *American Journal of Physiology: Endocrinology and Metabolism*. 306, 10, p. E1099-E1109 11 p.

Contraction and AICAR Stimulate IL-6 Vesicle Depletion From Skeletal Muscle Fibers In Vivo

Lauritzen, H. P. M. M., Brandauer, J., Schjerling, Peter, Koh, H., Treebak, Jonas Thue, Hirshman, M. F., Galbo, Henrik &
Goodyear, L. J., Sep 2013, In: *Diabetes*. 62, 9, p. 3081-92 12 p.

Insulin stimulation regulates AS160 and TBC1D1 phosphorylation sites in human skeletal muscle

Middelbeek, R. J. W., Chambers, M. A., Tantiwong, P., Treebak, Jonas Thue, An, D., Hirshman, M. F., Musi, N. &
Goodyear, L. J., Jun 2013, In: *Nutrition and Diabetes*. 3, 74, p. e74

AMP-activated protein kinase regulates nicotinamide phosphoribosyl transferase expression in skeletal muscle

Brandauer, J., Vienberg, S. G., Andersen, M. A., Jørgensen, Stine Ringholm, Risis, S., Larsen, P., Kristensen, Jonas
Møller, Frøsig, C., Leick, L., Fentz, J., Jørgensen, S. B., Kiens, Bente, Wojtaszewski, Jørgen F P, Richter, Erik A.,
Zierath, Juleen R, Goodyear, L. J., Pilegaard, Henriette & Treebak, Jonas Thue, 2013, In: *Journal of Physiology*. 591, p.
5207-5220 14 p.

AMPK and insulin action: Responses to ageing and high fat diet

Frøsig, C., Jensen, Thomas Elbenhardt, Jeppesen, J., Pehmøller, C., Treebak, Jonas Thue, Maarbjerg, S. J., Kristensen,
Jonas Møller, Sylow, L., Alsted, T. J., Schjerling, Peter, Kiens, Bente, Wojtaszewski, Jørgen F P & Richter, Erik A., 2013,
In: *PLoS One*. 8, 5, p. e62338 11 p.

AMPK regulates contraction-induced glucose uptake in situ but not ex vivo

Fentz, J., Pehmøller, C., Treebak, Jonas Thue, Kjøbsted, Rasmus, Viollet, B. & Wojtaszewski, Jørgen F P, 2013, In:
FASEB Journal. 27, 1 p., 1202.12.

Body composition and metabolic characterization.

Kristensen, Jonas Møller, Kiens, Bente, Sylow, Lykke, Maarbjerg, S. J., Alsted, T. J., Frøsig, C., Jeppesen, J., Jensen, T.
E., Schjerling, Peter, Treebak, Jonas Thue, Wojtaszewski, Jørgen F P, Richter, Erik A. & Pehmøller, C., 2013

Effekter af dyb læringstilgang på studerende med overflade og dyb tilgang til læring

Trebak, Jonas Thue, 2013, *Improving University Science Teaching and Learning: Pedagogical Projects 2012*. Ulriksen,
L., Sølberg, J. & Hansen, H. W. (eds.). 1 ed. Department of Science Education, University of Copenhagen, Vol. 5. p. 19-34
15 p.

Exercise-induced up-regulation of skeletal muscle Nampt protein is independent of alpha 2 AMP-activated protein kinase

Brandauer, J., Vienberg, S. G., Andersen, M. A., Kristensen, Jonas Møller, Wojtaszewski, Jørgen F P, Richter, Erik A. &
Trebak, Jonas Thue, 2013, In: *FASEB Journal*. 27, 1 p., lb806.

Impairments in site-specific AS160 phosphorylation and effects of exercise training

Consitt, L. A., Van Meter, J., Newton, C. A., Collier, D. N., Dar, M. S., Wojtaszewski, Jørgen F P, Trebak, Jonas Thue,
Tanner, C. J. & Houmard, J. A., 2013, In: *Diabetes*. 62, 10, p. 3437-3447 11 p.

Two Weeks of Metformin Treatment Induces AMPK Dependent Enhancement of Insulin Stimulated Glucose Transport in Mouse Skeletal Muscle

Kristensen, Jonas Møller, Treebak, Jonas Thue, Goodyear, L. J. & Wojtaszewski, Jørgen F P, 2013, In: Diabetes. 62, Suppl. 1, p. A462 1 p., 1780-P.

Acute exercise remodels promoter methylation in human skeletal muscle

Barrès, Romain, Yan, J., Egan, B., Treebak, Jonas Thue, Rasmussen, M., Fritz, T., Caidahl, K., Krook, A., O'Gorman, D. J. & Zierath, Juleen R, 7 Mar 2012, In: Cell Metabolism. 15, 3, p. 405-11 7 p.

5'-AMP activated protein kinase is involved in the regulation of myocardial β -oxidative capacity in mice

Stride, N., Larsen, S., Treebak, Jonas Thue, Hansen, C. N., Hey-Mogensen, M., Speersschneider, T., Jensen, Thomas Elbenhardt, Jeppesen, J., Wojtaszewski, Jørgen F P, Richter, Erik A., Køber, Lars Valeur & Dela, Flemming, 22 Feb 2012, In: Frontiers in Physiology. 3, 7 p., 00033.

GLUT4 and glycogen synthase are key players in bed rest-induced insulin resistance

Biensø, R. S., Jørgensen, Stine Ringholm, Kiilerich, K., Aachmann-Andersen, N. J., Krogh-Madsen, Rikke, Guerra, B., Plomgaard, Peter Stendahl, van Hall, Gerrit, Treebak, Jonas Thue, Saltin, B., Lundby, C., Calbet, J. A. L., Pilegaard, Henriette & Wojtaszewski, Jørgen F P, 2012, In: Diabetes. 61, 5, p. 1090-1099 10 p.

Insulin resistance after a 72-h fast is associated with impaired AS160 phosphorylation and accumulation of lipid and glycogen in human skeletal muscle

Vendelbo, M., Clasen, B. F. F., Treebak, Jonas Thue, Møller, L., Krusenstjerna-Hafstrøm, T., Madsen, M., Nielsen, Thomas Svava, Stødkilde-Jørgensen, H., Pedersen, S. B., Jørgensen, J. O. L., Goodyear, L. J., Wojtaszewski, Jørgen F P, Møller, N. & Jessen, N., 2012, In: American Journal of Physiology: Endocrinology and Metabolism. 302, 2, p. E190-E200 11 p.

Chronic AICAR treatment, but not voluntary exercise training, increases nicotinamide phosphoribosyl transferase (Namp1) protein expression in an AMPK-dependent manner in mouse quadriceps muscle

Brandauer, J. & Treebak, Jonas Thue, 2011, In: FASEB Journal.

Fatty acid composition in organs.

Sonne, Si Brask, Treebak, Jonas Thue, Pilegaard, Henriette, Fjare, E., Froyland, L., Kristiansen, Karsten, Hao, Q., Madsen, L., Petersen, R. K., Ngo, H. T., Lillefosse, H. H., Liaset, B., Ringholm, S. & Ma, Tao, 2011

Fatty acid composition in red blood cells.

Sonne, Si Brask, Treebak, Jonas Thue, Pilegaard, Henriette, Fjare, E., Froyland, L., Kristiansen, Karsten, Hao, Q., Madsen, L., Petersen, R. K., Ngo, H. T., Lillefosse, H. H., Liaset, B., Ringholm, S. & Ma, Tao, 2011

Fatty acid composition in the diets.

Sonne, Si Brask, Treebak, Jonas Thue, Pilegaard, Henriette, Fjare, E., Froyland, L., Kristiansen, Karsten, Hao, Q., Madsen, L., Petersen, R. K., Ngo, H. T., Lillefosse, H. H., Liaset, B., Ringholm, S. & Ma, Tao, 2011

Impaired insulin-induced site-specific phosphorylation of TBC1 domain family, member 4 (TBC1D4) in skeletal muscle of type 2 diabetes patients is restored by endurance exercise-training

Vind, B. F., Pehmøller, C., Treebak, Jonas Thue, Birk, Jesper Bratz, Hey-Mogensen, M., Beck-Nielsen, H., Zierath, J. R., Wojtaszewski, Jørgen F P & Højlund, K., 2011, In: Diabetologia. 54, 1, p. 157-167 11 p.

Macronutrient composition in the diets.

Sonne, Si Brask, Treebak, Jonas Thue, Pilegaard, Henriette, Fjare, E., Froyland, L., Kristiansen, Karsten, Hao, Q., Madsen, L., Petersen, R. K., Ngo, H. T., Lillefosse, H. H., Liaset, B., Ringholm, S. & Ma, Tao, 2011

Molecular mechanism by which AMP-activated protein kinase activation promotes glycogen accumulation in muscle

Hunter, R. W., Treebak, Jonas Thue, Wojtaszewski, Jørgen F P & Sakamoto, Kei, 2011, In: Diabetes. 60, 3, p. 766-774 9 p.

Sucrose counteracts the anti-inflammatory effect of fish oil in adipose tissue and increases obesity development in mice
Ma, Tao, Liaset, B., Hao, Q., Petersen, R. K., Fjære, E., Ngo, H. T., Lillefosse, H. H., Jørgensen, Stine Ringholm, Sonne, Si Brask, Treebak, Jonas Thue, Pilegaard, Henriette, Frøyland, L., Kristiansen, Karsten & Madsen, L., 2011, In: *P L o S One*. 6, 6, 12 p.

Bed Rest-Induced Changes in TBC1D4 Phosphorylation and Glycogen Synthase Activity. Effects of Acute Exercise
Bienso, R. S., Ringholm, S., Lundby, C., Achman-Andersen, N. J., Plomgaard, Peter Stendahl, Krogh-Madsen, Rikke, Kiilerich, K., Guerra, B., Treebak, Jonas Thue, Calbet, J. A., Pilegaard, Henriette & Wojtaszewski, J. J. F., 2010, In: *Diabetes*.

Effects of Exercise on Lipid-Induced Insulin Resistance in Human Skeletal Muscle-Signaling at the Level of TBC1D4
Pehmoller, C., Brandt, N., Birk, Jesper Bratz, Treebak, Jonas Thue, Hoeg, L. D., Sjoberg, K. A., Kiens, Bente, Richter, Erik A. & Wojtaszewski, Jørgen F P, 2010, In: *Diabetes*.

Identification of a novel phosphorylation site on TBC1D4 regulated by AMP-activated protein kinase in skeletal muscle
Trebak, Jonas Thue, Taylor, E. B., Witczak, C. A., An, D., Toyoda, T., Koh, H., Xie, J., Feener, E. P., Wojtaszewski, Jørgen F P, Hirshman, M. F. & Goodyear, L. J., 2010, In: *American Journal of Physiology: Cell Physiology*. 298, 2, p. C377-C385 9 p.

Sucrose nonfermenting AMPK-related kinase (SNARK) mediates contraction-stimulated glucose transport in mouse skeletal muscle
Koh, H., Toyoda, T., Fujii, N., Jung, M. M., Rathod, A., Middelbeek, R. J., Lessard, S. J., Treebak, Jonas Thue, Tsuchihara, K., Esumi, H., Richter, Erik A., Wojtaszewski, Jørgen F P, Hirshman, M. F. & Goodyear, L. J., 2010, In: *Proceedings of the National Academy of Science of the United States of America*. 107, 35, p. 15541-15546 6 p.

A-769662 activates AMPK {beta}1-containing complexes but induces glucose uptake through a PI3 kinase-dependent pathway in mouse skeletal muscle
Trebak, Jonas Thue, Birk, Jesper Bratz, Hansen, B. F., Olsen, G. S. & Wojtaszewski, Jørgen F P, 2009, In: *American Journal of Physiology: Cell Physiology*. 297, 4, p. C1041-C1052 12 p.

Genetic disruption of AMPK signaling abolishes both contraction- and insulin-stimulated TBC1D1 phosphorylation and 14-3-3 binding in mouse skeletal muscle
Pehmøller, C., Treebak, Jonas Thue, Birk, Jesper Bratz, Chen, S., Mackintosh, C., Hardie, D. G., Richter, Erik A. & Wojtaszewski, Jørgen F P, 2009, In: *American Journal of Physiology: Endocrinology and Metabolism*. 297, 3, p. E665-E675 11 p.

Genetic impairment of AMPK{alpha}2 signaling does not reduce muscle glucose uptake during treadmill exercise in mice
Maarbjerg, S. J., Jørgensen, S. B., Rose, A. J., Jeppesen, J., Jensen, Thomas Elbenhardt, Trebak, Jonas Thue, Birk, Jesper Bratz, Schjerling, Peter, Wojtaszewski, Jørgen F P & Richter, Erik A., 2009, In: *American Journal of Physiology: Endocrinology and Metabolism*. 297, 4, p. E924-E934 11 p.

Impaired Insulin-Mediated Phosphorylation of Skeletal Muscle TBC1D4 at Multiple Sites in Type 2 Diabetes. Effect of Endurance Training on TBC1D4 Protein and Phosphorylation
Vind, B. F., Pehmoller, C., Treebak, Jonas Thue, Birk, Jesper Bratz, Hey-Mogensen, M., Beck-Nielsen, H., Wojtaszewski, Jørgen F P & Hojlund, K., 2009, In: *Diabetes*.

Potential role of TBC1D4 in enhanced post-exercise insulin action in human skeletal muscle
Trebak, Jonas Thue, Frøsig, C., Pehmøller, C., Chen, S., Maarbjerg, S. J., Brandt, N., Mackintosh, C., Zierath, J. R., Hardie, D. G., Kiens, Bente, Richter, Erik A., Pilegaard, Henriette & Wojtaszewski, Jørgen F P, 2009, In: *Diabetologia*. 52, 5, p. 891-900 10 p.

Regulation of Rab-GTPase activating proteins, TBC1D1 and TBC1D4
Trebak, Jonas Thue, 2009, Copenhagen: Department of Exercise and Sport Sciences, University of Copenhagen. 149 p.

Role of adenosine 5'-monophosphate-activated protein kinase in interleukin-6 release from isolated mouse skeletal muscle

Glund, S., Treebak, Jonas Thue, Long, Y. C., Barres, R., Viollet, B., Wojtaszewski, Jørgen F P & Zierath, J. R., 2009, In: *Endocrinology*. 150, 2, p. 600-606 7 p.

Impaired insulin-stimulated phosphorylation of Akt and AS160 in skeletal muscle of women with polycystic ovary syndrome is reversed by pioglitazone treatment

Højlund, K., Glintborg, D., Andersen, Nicoline Resen, Birk, Jesper Bratz, Treebak, Jonas Thue, Frøsig, C., Beck-Nielsen, H. & Wojtaszewski, Jørgen F P, 2008, In: *Diabetes*. 57, 2, p. 357-366 10 p.

Possible role of AS160 in post-exercise increased insulin sensitivity in human skeletal muscle

Trebak, Jonas Thue, Kristensen, Jonas Møller, Frøsig, C., Pehmoller, C., Hardie, D. G., Kiens, Bente, Richter, Erik A. & Wojtaszewski, Jørgen F P, 2008, In: *Diabetes*.

Role of 5'AMP-activated protein kinase in skeletal muscle

Trebak, Jonas Thue & Wojtaszewski, Jørgen F P, 2008, In: *International Journal of Obesity*. 32 Suppl. 4, p. S13-S17 5 p.

Role of AMPK in IL-6 release from isolated mouse skeletal muscle

Glund, S., Treebak, Jonas Thue, Long, Y. C., Barrès, Romain, Viollet, B., Wojtaszewski, Jørgen F P & Zierath, Juleen R, 2008, In: *Diabetologia*.

Role of adenosine 5'-monophosphate-activated protein kinase subunits in skeletal muscle mammalian target of rapamycin signaling

Deshmukh, Atul Shahaji, Treebak, Jonas Thue, Long, Y. C., Viollet, B., Wojtaszewski, Jørgen F P & Zierath, J. R., 2008, In: *Molecular Endocrinology*. 22, 5, p. 1105-12 8 p.

AS160 phosphorylation is associated with activation of alpha(2)beta(2)gamma(1)- but not alpha(2)beta(2)gamma(3)-AMPK trimeric complex in skeletal muscle during exercise in humans

Trebak, Jonas Thue, Birk, Jesper Bratz, Rose, A. J., Kiens, Bente, Richter, Erik A. & Wojtaszewski, Jørgen F P, 2007, In: *American Journal of Physiology-Endocrinology and Metabolism*.

AS160 phosphorylation is associated with activation of alpha₂beta₂gamma₁ - but not alpha₂beta₂gamma₃ -AMPK trimeric complex in skeletal muscle during exercise in humans

Trebak, Jonas Thue, Birk, Jesper Bratz, Rose, A. J., Kiens, Bente, Richter, Erik A. & Wojtaszewski, Jørgen F P, 2007, In: *American Journal of Physiology: Endocrinology and Metabolism*. 292, 3, p. E715-E722 8 p.

Effects of endurance exercise training on insulin signaling in human skeletal muscle: Interactions at the level of phosphatidylinositol 3-kinase, Akt, and AS160

Frøsig, C., Rose, A. J., Treebak, Jonas Thue, Kiens, Bente, Richter, Erik A. & Wojtaszewski, Jørgen F P, 2007, In: *Diabetes*. 56, 8, p. 2093-2102 10 p.

Hyperphosphorylation and low protein content of muscle glycogen synthase contribute to insulin resistance in polycystic ovary syndrome: effects of pioglitazone treatment

Højlund, K., Glintborg, D., Andersen, N. R., Birk, Jesper Bratz, Treebak, Jonas Thue, Beck-Nielsen, H. & Wojtaszewski, Jørgen F P, 2007, In: *Diabetologia*.

Lack of AMPKalpha2 enhances pyruvate dehydrogenase activity during exercise

Klein, D. K., Pilegaard, Henriette, Treebak, Jonas Thue, Jensen, Thomas Elbenhardt, Viollet, B., Schjerling, Peter & Wojtaszewski, Jørgen F P, 2007, In: *American Journal of Physiology: Endocrinology and Metabolism*. 293, 5, p. E1242-E1249 8 p.

Role of AMPKalpha2 in basal, training-, and AICAR-induced GLUT4, hexokinase II, and mitochondrial protein expression in mouse muscle

Jørgensen, S. B., Treebak, Jonas Thue, Viollet, B., Schjerling, P., Vaulont, S., Wojtaszewski, Jørgen F P & Richter, Erik A., 2007, In: *American Journal of Physiology: Endocrinology and Metabolism*. 292, 1, p. E331-E339 9 p.

AMPK-mediated AS160 phosphorylation in skeletal muscle is dependent on AMPK catalytic and regulatory subunits.

Treebak, Jonas Thue, Glund, S., Deshmukh, Atul Shahaji, Klein, D. K., Long, Y. C., Jensen, Thomas Elbenhardt, Jørgensen, S. B., Viollet, B., Andersson, L., Neumann, D., Wallimann, T., Richter, Erik A., Chibalin, A. V., Zierath, J. R. & Wojtaszewski, Jørgen F P, 2006, In: Diabetes. 55, 7, p. 2051-8 7 p.

Exercise in rats does not alter hypothalamic AMP-activated protein kinase activity

Andersson, U., Treebak, Jonas Thue, Nielsen, J. N., Smith, K. L., Abbott, C. R., Small, C. J., Carling, D. & Richter, Erik A. , 2005, In: Biochemical and Biophysical Research Communications. 329, 2, p. 719-725 7 p.

alpha 2-AMPK knockout abolishes AICAR but not exercise training-induced GLUT4 and HKII protein expression in mouse skeletal muscle

Jørgensen, Solvejg, Treebak, Jonas Thue, Viollet, B., Andreelli, F., Schjerling, Peter, Vaulont, S., Wojtaszewski, Jørgen F P & Richter, Erik A., 2005, In: FASEB Journal.