“...preservation of muscle mass is the ultimate goal in the management of PEW (protein-energy wasting).”

“In CKD and ESRD patients where... catabolic signals dominate, it is critical to maintain a dietary protein intake relative to needs.”

“In addition to... the deaths and hospitalizations that can be prevented by improvements in nutritional status, the predicted financial gains greatly overcome any cost [of] readily available nutritional interventions for CKD and ESRD patients.”

— Prevention and treatment of protein-energy wasting in chronic kidney disease patients: a consensus statement by the International Society of Renal Nutrition and Metabolism*

What is TNT?
TNT (Total Nutrition Therapy) is the premier global clinical nutrition course for physicians and allied healthcare professionals. With more than 25,000 graduates from over 30 countries, TNT was originally developed in 1996 in a partnership between FELANPE* and Abbott Nutrition. There are now a range of specialty TNT courses focusing on pediatrics, neonatology, critical care, geriatrics, wound healing and diabetes.

Why was TNT developed?
TNT aims to help improve patient outcomes by incorporating nutrition therapy into standards of best practice patient care. The interactive, expert-endorsed learning program helps healthcare professionals understand the value of a healthy nutrition status and the practical application of clinical nutrition best practices, including nutrition assessment, intervention and monitoring.

What is TNT Renal?
TNT Renal is the specialty TNT clinical nutrition course developed by and for Nephrologists and other renal healthcare professionals that treat patients with acute and chronic kidney disease. The TNT Renal course was developed in 2013 and revised in 2019 to incorporate new evidence including the 2020 KDOQI guidelines on renal nutrition.

Who developed TNT Renal?
The TNT Renal course was written by global renal nutrition experts of the International Society of Renal Nutrition and Metabolism (ISRNM). The TNT Renal Program is chaired by:

- Juan Jesus Carrero, Pharm, PhD, Stockholm, Sweden
- Daniel Teta, MD, PhD, Lausanne, Switzerland

The TNT Renal Program editorial board includes:

- Kamyar Kalantar-Zadeh, MD, PhD, California, USA
- Alison Steiber, RD, PhD, Chicago, USA
- Angela Ye-Moon Wang, MD, PhD, Hong Kong, China

The TNT Renal team of writers includes:

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- Lina Johansson, RD, PhD, London, U.K.
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- Csaba P Kovesdy, MD, Tennessee, USA
- Pablo Molina, MD, PhD, Valencia, Spain
- Karine Moreau, MD, PhD, Bordeaux, France

*Latin American Federation of Nutritional Therapy, Clinical Nutrition and Metabolism (FELANPE)
What are the TNT Renal learning objectives?
The TNT Renal Course is designed to help you:

• Describe how protein-energy wasting (PEW) and failure to provide nutrition therapy impair clinical and financial outcomes in non-dialyzed and dialyzed patients with kidney disease
• Describe how appropriate renal nutrition support can enhance outcomes for non-dialyzed and dialyzed patients with kidney disease
• Rapidly identify risk for and diagnose PEW in patients with kidney disease
• Determine nutrient requirements and develop and implement renal-specific nutrition care plans for dialyzed and non-dialyzed patients with kidney disease
• Monitor and manage renal nutrition therapy to close nutrition gaps, support patient recovery and improve outcomes

What is the TNT Renal learning experience?
TNT Renal is an interactive two-day course of stimulating lectures, case studies and workshops led by expert faculty. The hallmark of the TNT experience is a set of four case studies that illustrate and apply clinical nutrition principles learned in the lectures and workshops. Organized as a small group discussion, each case study offers insight into best practices in renal care for patients with acute and chronic kidney disease.

TNT Renal lectures include:

• Nutrition, Metabolism, and Kidney Disease
• Etiology of Protein-energy Wasting in CKD
• Nutrition Screening and Assessment
• Prevalence and Impact of PEW in Kidney Disease
• Dietary Management of Non-dialyzed CKD Patients
• Enteral Nutrition for Non-dialyzed and Dialyzed CKD Patients
• IDPN and Other Interventions to Improve PEW
• Nutrition for Hospitalized Patients with Kidney Disease
• Obesity, Insulin Resistance, and Diabetes in CKD
• Nutrition in the elderly with CKD
• Sarcopenia, frailty, and benefits of exercise in CKD
• Nutritional considerations for the kidney transplanted patient

Workshops on nutrition assessment, nutrient requirements and nutrition intervention will help you develop practical clinical skills relevant to your patient practice.
How will I benefit by attending a TNT Renal course?
You will be able to easily identify patients at nutrition risk and develop and implement nutrition care plans to help your patients improve nutrition status and overall prognosis. You will also have a firm grasp of the science documenting the huge scale and cost of PEW and the benefits of early, pro-active nutrition intervention to prevent and treat PEW.

How is TNT Renal different from other education programs?
TNT Renal was developed by recognized experts from the International Society of Renal Nutrition and Metabolism (ISRNM). Moreover, TNT Renal is the first clinical nutrition course focused on kidney disease with an experiential learning approach, including four practical patient case studies and two workshops led by expert practitioners.

For more information about TNT Renal, please contact:
• Your local Abbott Nutrition Representative
• International Society of Renal Nutrition and Metabolism (ISRNM): www.renal-nutrition.org