# Tables

**Table 1: Ongoing clinical trial investigating the effectiveness of combining immunotherapy to immunonutrition.**

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| **Title and ID number** | **Patients** | **Study design** | **Primary outcome/s** | **Secondary outcomes** |
| Immunonutrition for Improving the Efficacy of Immunotherapy in Patients With Metastatic Non-small Cell Lung Cancer (MURAL)NCT05384873 | Metastatic NSCLC | Randomized interventional study Intervention: Immunonutrition Control: standard ONS | * PFS
 | * Duration response
* Treatment side effects
* Body composition
* Fatigue
* QoL
* Activity levels
* Levels of immunological markers
 |
| Efficacy and Safety of Concurrent PD-1 Inhibitor and Radiotherapy With Immunonutrition for Esophageal Squamous Cell CarcinomaNCT06342167 | Esophageal Squamous Cell Carcinoma | Single-arm interventional studyIntervention: IO+ RT+ immunonutrition support | * PFS
 | * ORR
* OS
* AEs incidence
 |

NSCLC: Non-Small Cell Lung Cancer; PFS: Progression Free Survival; QoL: Quality of Life; ORR: Objective Response Rate; OS: Overall Survival; AEs: Adverse Event; IO: immunotherapy; RT: Radiotherapy.

**Table 2: Ongoing clinical trial investigating the association between gut microbiome composition and immunotherapy.**

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| --- | --- | --- | --- | --- |
| **Title and ID number** | **Patients** | **Study design** | **Primary outcome/s** | **Secondary outcomes** |
| Effect of Gut Microbiota and Its Metabolites on the Efficacy of Immunotherapy in Metastatic Colorectal CancerNCT06714903 | Metastatic colorectal cancer | Observational, prospective study Group 1: sintilimab plus fruquintinibGroup 2: fruquintinib aloneVariables collected: GM; metabolomic and proteomics signatures | * IO efficacy
 | - |
| The Gut Microbiome and Immunotherapy Response in Solid CancersNCT06050733 | Solid cancer patient | Observational, Cross-sectionalGroup 1: patients with disease progressionGroup 2: patients with stable or experience shrinkage in tumour size | * Characterization of fecal microbiome
 | * Cognitive function
* Fatigue
* Gastrointestinal health
 |
| The Intestinal Microbiome in Triple Negative Breast Cancer Treated with Immunotherapy (IMPACT)NCT06318507 | Breast Neoplasms | Observational, prospective studyVariables collected: GM diversity | * pCR
 | - |
| ARGONAUT: Stool and Blood Sample Bank for Cancer PatientsNCT04638751 | * NSCLC
* TNBC
* Colorectal cancer
* Pancreatic cancer
* High risk for colorectal cancer
 | Observational, prospective study | * GM predictiveness of PFS
* GM predictiveness of colorectal cancer
 | * Correlation between GM composition and immune markers
* GM predictiveness of OS
* Library building
 |
| Gut Microbiome and Treatment for Gynaecological Cancer Patients Receiving ImmunotherapyNCT04957511 | Advanced or recurrent gynaecological cancer | Observational, prospective study | * GM microbiome changes
 | - |
| Association Between Microbiome and the Efficacy and Safety of PD-1/PD-L1 Blockade in Resectable NSCLCNCT06613308 | Resectable NSCLC | Observational, prospective studyGroup 1: Neoadjuvant IO+ CTxGroup 2: Neoadjuvant CTx | * mPR
* pCR
 | * DFS
* OS
* irAEs
* Microbes in respiratory and gut tracts
* Radiological response
* Single-cell immune repertoire
 |
| Development and Analysis of a Stool Bank for Cancer PatientsNCT04291755 | Patients undergoing cancer IO | Observational, prospective studyVariables collected: Stool, blood, urine samples | * ICIs response
 |  |
| Microbiome Immunotherapy Neoadjuvant Assessment (MINA)NCT06709651 | early-stage TNBC | Observational, prospective study | * Local breast cancer microbiome pre-vs post-therapy
 | * Local breast cancer microbiome and pCR
* Local breast cancer microbiome and event-free survival
* Local breast cancer microbiome and OS
* Local breast cancer microbiome and TILs
* GM pre- vs post-therapy
 |
| Microbiome Immunotherapy Toxicity and Response EvaluationNCT04107168 | Advanced cancer | Observational, prospective study | * GM predictiveness of PFS
 | * GM predictiveness of OS
* GM predictiveness of relapse
* GM correlation with treatment efficacy
* GM correlation with incidence and type of irAEs
* GM correlation with patients features
* Library building
 |
| Modulation of the Gut Microbiome With Pembrolizumab Following Chemotherapy in Resectable Pancreatic CancerNCT05462496 | Pancreatic adenocarcinoma | Single-arm interventional studyIntervention: antibiotics+pembrolizumab following CTx | * Overall immune response
 | * AEs incidence
* R0 resection rate
* Proportion of participant with histologic regression score 0, 1 or 2
* ORR
* OS
 |
| A Study of Oncobax®-AK in Patients With Advanced Solid TumorsNCT05865730 | NSCLC and RCC | Single-arm interventional study (phase 1/2)Intervention: Live bacteria product: Akkeremansia municiphila | * ORR
 | * PFS
 |
| The Impact of Probiotic on Survival and Treatment Response in Metastatic Non-small Cell Lung Cancer PatientsNCT06428422 | Metastatic NSCLC | Randomized interventional studyIntervention: Bifidobacterium animalis subsp. Alctis B1-04Control: placebo | * Clinical Response
* PFS
* OS
 | * GM modulation
* Immunological findings
 |
| Metastatic Melanoma Patients on Immunotherapy With Nutritive Intervention Based on Mediterranean Diet (MINI-MD)NCT06236360 | Metastatic melanoma | Randomized interventional studyIntervention: MedDietControl: no diet | * Levels of ingested flavones, anthocyanin; w-3 FA; Vitamin D; fiber
 | * Radiological response rate
* Association between GM changes and IO response
* QoL
* Biochemical biomarker of melanoma (S100 and LDH)
* GM changes and immune response and AEs
 |
| The Effect of Diet and Exercise on ImmuNotherapy and the Microbiome (EDEN)NCT04866810 | Melanoma | Randomized interventional studyIntervention: High-fibre, plant-based diet+ exerciseControl: Standard Diet and exerciseVariables collected: GM signatures | * Feasibility
 | * OS
* QoL
* ORR
 |
| Prebiotic Food-enriched Diet (PreFED) to Enhance the Microbiome and Response to First-line Immunotherapy in Unresectable MelanomaNCT06466434 | Unresectable melanoma | Single-arm interventional studyIntervention: Prebiotic Food-enriched diet | * Stool Faecalibacterium abbundances
 |  |
| High-Intensity Exercise and High-Fiber Diet for Immunotherapy Outcomes in Melanoma Patients: The DUO TrialNCT06298734 | Advanced melanoma | Randomized interventional studyArm 1: Exercise programArm 2: Diet programArm 3: Exercise+ diet programArm 4: no intervention  | * GM diversity
 | * Systemic immune function
* Cardiopulmonary fitness
* Short Physical Performance Battery
* Body composition
* Anthropometric measures
 |
| FMT+ Immunotherapy+ Chemotherapy As First-line Treatment for Driver-gene Negative Advanced NSCLCNCT06403111 | NSCLC | Single-arm interventional trialIntervention: CTx + IO + FMT | * PFS
 | * ORR
* AEs incidence
* DOR
* GM diversity
* QoL
 |
| FMT to Convert Response to ImmunotherapyNCT05251389 | Advanced cutaneous end stage melanoma | Randomized interventional studyIntervention: FMT from a ICI non-responding donorControl: FMT from a ICI responding donor | * Efficacy (SD, PR, CR
 | * Safety
* PFS
* GM changes and stability
* Immune cells population changes in the TME
 |
| Fecal Microbiota Transplantation With Immune Checkpoint Inhibitors in Lung CancerNCT05502913 | Metastatic lung cancer | Randomized interventional studyIntervention: SoC [IO± CTx] + FMTControl: SoC | * PFS
 | * OS
* ORR
* Rate of Disease Control
* Microbiome analysis
* Antibody and lymphocytes subpopulation
* Safety and feasibility
 |
| Fecal Microbiota Preventing Toxicity in Renal Cancer Patients Treated With Immunotherapy Using Fecal Microbiota Transplantation (PERFORM)NCT04163289 | RCC | Single-arm interventional studyIntervention: FMT | * Immune-related colitis occurrence
 | * irAEs incidence
* Treatment discontinuation because of irAEs
* ORR
* GM changes
* Immune response
* QoL
* PFS
* OS
* Tumor immune profile
 |
| Fecal Microbiota Transfer in Liver Cancer to Overcome Resistance to Atezolizumab/Bevacizumab (FLORA) (FLORA)NCT05690048 | HCC | Randomized interventional trialIntervention: FMTControl: placebo FMT | * CD8 T-cell tumoral infiltration
* AEs
 | * PFS
* OD
* Hepatic function
 |
| FMT in IT-refractory HCC - FAB-HCC Pilot StudyNCT05750030 | HCC | Single-arm interventional trialIntervention: FMT+ Atezolizumab + Bevacizumab | * Safety (AEs incidence)
 | * Efficacy (CR, PR, SD, PD
* Efficacy (ORR, DCR)
* Efficacy (PFS, OS)
* QoL
* GM composition
* Gut immune activity
* Circulating immune cells
* Stool metabolomics and lipidomics
 |
| Fecal Microbial Transplantation in Combination With Immunotherapy in Melanoma Patients (MIMic)NCT03772899 | Melanoma | Single-arm interventional studyIntervention: FMT | * Safety
 | * ORR
* GM composition
* Immune blood biomarkers
* metabolomics
 |

GM: Gut microbiome; pCR: pathological Complete Response; NSCLC: Non-Small Cell Lung Cancer; TNBC: Triple Negative Breast Cancer; PFS: Progression Free Survival; OS: Overall Survival; CTx: Chemotherapy; mPR: major Pathological Response; DFS: Disease Free Survival; IO: immunotherapy; TILs: Tumour Infiltrating Leukocytes; ORR: Overall Response Rate; RCC. Renal Cell Carcinoma; MedDiet: Mediterranean diet; w-3 FA: omega-3 Fatty Acid; QoL: Quality of Life; FMT: Fecal Microbiome Transplantation; DOR: Duration Of Response; SD: Stable Disease; PR: Partial Response; CR: Complete Response; TME: Tumor microenvironment; SoC: Standard of Care; HCC: Hepatocellular Carcinoma; PD: Progressive Disease.

**Table 3: Ongoing clinical trial investigating the association between alternative diets and immunotherapy.**

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| --- | --- | --- | --- | --- |
| **Title** | **Patients** | **Study design** | **Primary outcome/s** | **Secondary outcomes** |
| FASTing-like Approach and Maintenance IMMunotherapy in ES-SCLC Patients Not Progressing on Chemo immunotherapy Induction (FASTIMMUNE)NCT05703997 | ES-SCLC | Single-arm interventional studyIntervention: 5-day calorie restriction | * PFS
 | * OS
* Compliance
* AEs
* Plasma amino acids
* Plasma fatty acids
* Serum growth factors
* Peripheral blood immune cell populations
 |
| Low Dose TamOxifen and LifestylE Changes for bReast cANcer prevenTion (TOLERANT)NCT06033092 | Women at increased risk for BC | Randomized interventional studyArm 1: Low dose tamoxifen + Intermittent Caloric RestrictionArm 2: Lifestyle interventionArm 3: Lifestyle Intervention + Intermittent Caloric RestrictionArm 4: Low dose tamoxifen | * Post intervention levels of circulating binding globulin
 |  |
| Ketogenic Dietary Intervention to Improve Response to Immunotherapy in Patients with Metastatic Melanoma and Metastatic Kidney CancerNCT06391099 | Metastatic RCC and melanoma | Randomized interventional study: Intervention: Ketogenic dietControl: usual care | * Incidence of AEs
* Feasibility
 |  |
| A Pilot and Feasibility Study of a Dietary Intervention with Low-protein Meals in Cancer Patients Receiving ImmunotherapiesNCT05356182 | Cancer treated with immunotherapy | Randomized interventional trialIntervention: Low-protein dietControl: Control diet | * Feasibility
 | * Immune response
* Safety and tolerability
* Efficacy
 |

ES-SCLC: Extensive-stage small cell lung cancer; BC: Breast Cancer; RCC: renal cell carcinoma; AEs: Adverse Event.