

SUPPLEMENTARY MATERIAL

Text 1. Detailed Immersion program menu

Day 1 – reception

- Crudité of fresh vegetables, whole grain crostini, toasted whole wheat pita
- Assortment of dips: cannellini beans, fava beans, hummus, spinach and roasted red pepper, cauliflower
- Assorted fruit and vegetable infused water: lemon, lime, cucumber and mint

Day 1 – dinner (American theme)

- Salad bar
 - romaine lettuce, baby Florida greens, kale, spinach, arugula (rotate two greens per salad bar) sliced tomatoes, kidney beans, sliced radishes, sliced cucumbers, shredded carrots, shredded red cabbage, sliced onions, diced avocado, chick peas, snow peas, tri-colored peppers, chopped zucchini, corn, radicchio, dill, parsley
 - lightly sautéed mushrooms in vegetable stock
 - spices: nutritional yeast, red pepper flakes, dulse/kelp, cayenne pepper, garlic powder, black pepper
 - nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios and flax, chia, sesame, sunflower, and pumpkin; rotate two nuts and two seeds each day)
 - dressings: three flavored vinegars, house-made cashew Cesar salad dressing
 - Soup: red bean and turnip chili
 - Entrée
 - veggie burger in whole wheat pita pockets
 - toppings: sliced tomato, avocado, onions
 - condiments: mustard, hummus (without oil) and organic ketchup, sugar-free Dijon mustard
 - Side dishes (greens)
 - steamed mixed veggies (asparagus, squash, carrots)
 - pineapple spinach salad
 - Side dish (starch)
 - sweet potatoes gratin topped with almond butter
 - Dessert
 - chocolate cake
 - cut fruit: pineapple, watermelon, cantaloupe, honeydew, and berries
 - whole fruits: apples, oranges, bananas, pears, and plums
 - Beverages
 - water and herbal tea with lemon wedges and unsweetened plant-based milks

Day 2 – breakfast

- Grain
 - steel cut plain oatmeal (hot cereal)
 - blueberry oatmeal (cold cereal)

- Smoothie: spinach, bananas, and strawberries
- Fruit and berries
- berries (blueberries, strawberries, raspberries, blackberries; rotate two of 4=four each day)
- cut fruit: pineapple, watermelon, cantaloupe, and honeydew
- whole fruit: apples, oranges, bananas, pears, and plums
 - Entrée: warm tropical quinoa
 - Greens: romaine lettuce and quartered avocado (with skin intact)
 - Nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios, flax, chia, sesame, sunflower, and pumpkin; rotate two nuts and two seeds each day)
 - Spices: cinnamon, pumpkin, cayenne pepper, lemon wedges
 - Beverages: water and herbal tea with lemon wedges and unsweetened plant-based milks

Day 2 – lunch

- Salad bar
- romaine lettuce leaves, baby Florida greens, kale, spinach, arugula (rotate two greens per salad bar) sliced tomatoes, kidney beans, sliced radishes, sliced cucumbers, shredded carrots, shredded red cabbage, very thinly sliced onions, diced avocado, chick peas, snow peas, tri colored pepper, chopped zucchini, corn, radicchio, dill, parsley
- lightly sautéed mushrooms in vegetable stock
 - Spices: nutritional yeast, red pepper flakes, dulse/kelp, cayenne pepper, garlic powder, black pepper
 - Nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios and flax, chia, sesame, sunflower, pumpkin; rotate two nuts and two seeds each day)
 - Dressings
- three flavored vinegars
- house-made cashew Cesar salad dressing
 - Soup: roasted red pepper soup
 - Entrée
- whole wheat veggie pesto wrap with eggplant, squashes, mushroom, and bean sprouts
- whole wheat seaweed slaw wrap with tofu, avocados, roasted red pepper, and bean dip
 - Side green dish
- kale and avocado salad
 - Side starch dish: three beans salad with pumpkin seeds
 - Dessert
- cut fruit (pineapple, watermelon, cantaloupe, honeydew, berries)
- bowl of hand fruit (apples, oranges, bananas, pears, plums)
 - Beverages
- water and herbal tea w/ lemon wedges and unsweetened plant-based milks

Day 2 – dinner (Asian theme)

- Salad bar
 - romaine lettuce leaves, baby Florida greens, kale, spinach, arugula (rotate two greens per salad bar) sliced tomatoes, kidney beans, sliced radishes, sliced cucumbers, shredded carrots, shredded red cabbage, very

- thinly sliced onions, diced avocado, chick peas, snow peas, tri colored pepper, chopped zucchini, corn, radicchio, dill, parsley
- lightly sautéed mushrooms in vegetable stock
 - Spices: nutritional yeast, red pepper flakes, dulse/kelp, cayenne pepper, garlic powder, black pepper
 - Nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios and flax, chia, sesame, sunflower, pumpkin; rotate two nuts and two seeds each day)
 - Dressings
- three flavored vinegars
- house-made cashew Cesar salad dressing
 - Soup: shitake mushroom with hatahui (Chinese cabbage) broth
 - Entrée: tahini rubbed tofu with baby bok choy and kabu (turnip) in ginger stock
 - Side green dish
- horens (spinach), red cabbage renkon (lotus root), with lemon grass
- steamed broccoli and cauliflower
 - Side starch dish: red rice
 - Dessert
- cut fruit (pineapple, watermelon, cantaloupe, honeydew, berries)
- bowl of hand fruit (apples, oranges, bananas, pears, plums)
 - Beverages
- water and herbal tea with lemon wedges and unsweetened plant-based milks

Day 3 – breakfast

- Grain
- steel cut pineapple oatmeal (hot cereal)
- muesli (cold cereal)
 - Smoothie: peach and spinach
 - Fruit and berries
- berries (blueberries, strawberries, raspberries, and blackberries; rotate two of four each day)
- cut fruit (pineapple, watermelon, cantaloupe, honeydew)
- bowl of hand fruit (apples, oranges, bananas, pears, plums)
 - Entrée: pancakes served with applesauce
 - Greens: romaine leaves and quartered avocado (with skin intact)
 - Nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios and flax, chia, sesame, sunflower, pumpkin; rotate two nuts and two seeds each day)
 - Spices: cinnamon, pumpkin spice, cayenne pepper, lemon wedges
 - Beverages: water and herbal tea with lemon wedges and unsweetened plant-based milks

Day 3 – lunch

- Salad bar
- romaine lettuce leaves, baby Florida greens, kale, spinach, arugula (rotate two greens per salad bar) sliced tomatoes, kidney beans, sliced radishes, sliced cucumbers, shredded carrots, shredded

- red cabbage, very thinly sliced onions, diced avocado, chick peas, snow peas, tri colored pepper, chopped zucchini, corn, radicchio, dill, parsley
- lightly sautéed mushrooms in vegetable stock
 - Spices: nutritional yeast, red pepper flakes, dulse/kelp, cayenne pepper, garlic powder, black pepper
 - Nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios and flax, chia, sesame, sunflower, pumpkin; rotate two nuts and two seeds each day)
 - Dressings
- three flavored vinegars
- house-made cashew Cesar salad dressing
 - Soup: cream of mushroom soup
 - Entrée
- sweet potato pie with roasted vegetables, mix baby greens topped with roasted mix nuts
 - Side green dish
- cauliflower, kale and collard greens in coconut milk puree with giant Peruvian lima beans
 - Side starch dish: red quinoa with lentils and fresh cilantro
 - Dessert
- cut fruit (pineapple, watermelon, cantaloupe, honeydew, berries)
- whole fruit (apples, oranges, bananas, pears, plums)
 - Beverages
- water and herbal tea with lemon wedges and unsweetened plant-based milks

Day 3 – dinner (Moroccan theme)

- Salad bar
- romaine lettuce leaves, baby Florida greens, kale, spinach, arugula (rotate two greens per salad bar) sliced tomatoes, kidney beans, sliced radishes, sliced cucumbers, shredded carrots, shredded red cabbage, very thinly sliced onions, diced avocado, chick peas, snow peas, tri colored pepper, chopped zucchini, corn, radicchio, dill, parsley
- lightly sautéed mushrooms in vegetable stock
 - Spices: nutritional yeast, red pepper flakes, dulse/kelp, cayenne pepper, garlic powder, black pepper
 - Nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios and flax, chia, sesame, sunflower, pumpkin; rotate two nuts and two seeds each day)
 - Dressings
- three flavored vinegars
- house-made cashew Cesar salad dressing
 - Soup: serrouda (Moroccan chickpea puree)
 - Entrée
- tangine (vegetable stew) eggplant, carrots, peas, squashes, peppers, and tomato saffron sauce
- toasted whole wheat pita points
 - Side green dish
- sautéed fava beans and cauliflower in lemon zest, cumin and vegetable stock
- steamed broccoli and cauliflower
 - Side starch dish: wheat couscous and lentils
 - Dessert
- m'hancha cookies: almonds and dates with pastilla leave and water orange flowers
- cut fruit (pineapple, watermelon, cantaloupe, honeydew, berries)

- bowl of hand fruit (apples, oranges, bananas, pears, plums)
 - Beverages
- water and herbal tea with lemon wedges and unsweetened plant-based milks

Day 4 – breakfast

- Grain
 - steel cut plain oatmeal (hot cereal)
 - raisin oatmeal (cold cereal)
- Smoothie: cherry, chocolate, kale
- Fruit and berries
 - berries (blueberries, strawberries, raspberries, blackberries; rotate two each day)
 - cut fruit (pineapple, watermelon, cantaloupe, honeydew)
 - whole fruit (apples, oranges, bananas, pears, plums)
- Entrée: warm open face whole wheat pita with roasted squash, mushrooms, red peppers and hummus
- Greens: romaine leaves and quartered avocado (with skin intact)
- Nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios and flax, chia, sesame, sunflower, and pumpkin; rotate two nuts and two seeds each day)
- Spices: cinnamon, pumpkin, cayenne pepper, lemon wedges
- Beverages: water and herbal tea with lemon wedges and unsweetened plant-based milks

Day 4 – lunch

- Salad bar
 - romaine lettuce leaves, baby Florida greens, kale, spinach, arugula (rotate two greens per salad bar) sliced tomatoes, kidney beans, sliced radishes, sliced cucumbers, shredded carrots, shredded red cabbage, very thinly sliced onions, diced avocado, chick peas, snow peas, tri colored pepper, chopped zucchini, corn, radicchio, dill, parsley
 - lightly sautéed mushrooms in vegetable stock
 - Spices: nutritional yeast, red pepper flakes, dulse/kelp, cayenne pepper, garlic powder, black pepper
 - Nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios and flax, chia, sesame, sunflower, pumpkin; rotate two nuts and two seeds each day)
- Dressings
 - three flavored vinegars
 - house-made cashew Cesar salad dressing
 - Soup: white bean and escarole
 - Entrée: roasted vegetable balls in herbed tomato sauce (extra sauce)
 - Side green dish: broccolini, mushrooms and cauliflower with casher butter sauce
 - Side starch dish: tempeh and coarse polenta cakes
 - Dessert
- cut fruit (pineapple, watermelon, cantaloupe, honeydew, berries)
- whole fruit (apples, oranges, bananas, pears, plums)
 - Beverages
- water and herbal tea with lemon wedges and unsweetened plant-based milks

Day 4 – dinner (Italian theme)

- Salad bar
- romaine lettuce leaves, baby Florida greens, kale, spinach, arugula (rotate two greens per salad bar) sliced tomatoes, kidney beans, sliced radishes, sliced cucumbers, shredded carrots, shredded red cabbage, very thinly sliced onions, diced avocado, chick peas, snow peas, tri colored pepper, chopped zucchini, corn, radicchio, dill, parsley
- lightly sautéed mushrooms in vegetable stock
 - Spices: nutritional yeast, red pepper flakes, dulse/kelp, cayenne pepper, garlic powder, black pepper
 - Nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios and flax, chia, sesame, sunflower, pumpkin; rotate two nuts and two seeds each day)
 - Dressings
- three flavored vinegars
- house-made cashew Cesar salad dressing
 - Soup: minestrone with buckwheat groats
 - Entrée
- veggie lasagna with red sauce (additional sauce on the side)
 - Side green dish
- summer Italian-style mixed vegetable salad
- sautéed green cabbage with garlic, sun dried red pepper and cannellini beans
- steamed broccoli and cauliflower
 - Side starch dish: whole wheat penne pasta
 - Dessert
- cut fruit (pineapple, watermelon, cantaloupe, honeydew, berries)
- whole fruit (apples, oranges, bananas, pears, plums)
 - Beverages
- water and herbal tea with lemon wedges and unsweetened plant-based milks

Day 5 – breakfast

- Grain
- steel cut fig oatmeal (hot cereal)
- strawberry oatmeal (cold cereal)
 - Smoothie: banana, mango, kale
 - Fruit and berries
- berries (blueberries, strawberries, raspberries, blackberries; rotate two of four each day)
- cut fruit (pineapple, watermelon, cantaloupe, honeydew)
- whole fruit (apples, oranges, bananas, pears, plums)
 - Entrée: sweet potato hash
 - Greens: romaine leaves and quartered avocado (with skin intact)
 - Nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios and flax, chia, sesame, sunflower, pumpkin; rotate two nuts and two seeds each day)
 - Spices: cinnamon, pumpkin spice, cayenne pepper, lemon wedges
 - Beverages: water and herbal tea with lemon wedges and unsweetened plant-based milks

Day 5 – lunch

- Salad bar
- romaine lettuce leaves, baby Florida greens, kale, spinach, arugula (rotate two greens per salad bar) sliced tomatoes, kidney beans, sliced radishes, sliced cucumbers, shredded carrots, shredded red cabbage, very thinly sliced onions, diced avocado, chick peas, snow peas, tri colored pepper, chopped zucchini, corn, radicchio, dill, parsley
 - lightly sautéed mushrooms in vegetable stock
 - Spices: nutritional yeast, red pepper flakes, dulse/kelp, cayenne pepper, garlic powder, black pepper
 - Nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios and flax, chia, sesame, sunflower, pumpkin; rotate two nuts and two seeds each day)
 - Dressings
- three flavored vinegars
- house-made cashew Cesar salad dressing
 - Soup: poblano corn chowder
 - Entrée
- 100% whole wheat pita-pizza (tofu, baby bok choy, marinara sauce)
- 100% whole wheat pita-pizza (roasted vegetables, pesto sauce, black beans, corn, avocado, tomatillos sauce)
 - Side green dish
- kale, orange grapefruit, herbed vinaigrette, white beans, toasted almonds
 - Side starch dish: green soba noodles salad with bamboo mushrooms, roasted red peppers tossed in sesame vinaigrette
 - Dessert
- cut fruit (pineapple, watermelon, cantaloupe, honeydew, berries)
- whole fruit (apples, oranges, bananas, pears, plums)
 - Beverages
- water and herbal tea with lemon wedges and unsweetened plant-based milks

Day 5 – dinner (Caribbean theme)

- Salad bar
- romaine lettuce leaves, baby Florida greens, kale, spinach, arugula (rotate two greens per salad bar) sliced tomatoes, kidney beans, sliced radishes, sliced cucumbers, shredded carrots, shredded red cabbage, very thinly sliced onions, diced avocado, chick peas, snow peas, tri colored pepper, chopped zucchini, corn, radicchio, dill, parsley
 - Lightly sautéed mushrooms in vegetable stock
 - Spices: nutritional yeast, red pepper flakes, dulse/kelp, cayenne pepper, garlic powder, black pepper
 - Nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios and flax, chia, sesame, sunflower, pumpkin; rotate two nuts and two seeds each day)
 - Dressings
- three flavored vinegars
- house-made cashew Cesar salad dressing
 - Soup: four bean chili with tofu crumble
 - Entrée
- baked sole with fresh fennel and mango papaya salsa

- baked tofu with sauté mushrooms and herb gravy
 - Side green dish
- baked zucchini and squash with Provencal sauce
- broccoli and cauliflower
 - Side starch dish: quinoa roasted curry cauliflower and butternut squash
 - Dessert
- vanilla carrot/apple cake with macadamia nut icing
- cut fruit (pineapple, watermelon, cantaloupe, honeydew, berries)
- bowl of hand fruit (apples, oranges, bananas, pears, plums)
 - Beverages
- water and herbal tea with lemon wedges and unsweetened plant-based milks

Day 6 – breakfast

- Grain
 - steel cut oatmeal (hot cereal)
 - blackberry oatmeal (cold cereal)
 - Smoothie: strawberries, blueberries, collard greens
 - Fruit and berries
- berries (blueberries, strawberries, raspberries, blackberries; rotate two of four each day)
- cut fruit (pineapple, watermelon, cantaloupe, honeydew)
- whole fruit (apples, oranges, bananas, pears, plums)
 - Entrée: tofu scramble
 - Greens: romaine leaves and quartered avocado (with skin intact)
 - Nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios and flax, chia, sesame, sunflower, pumpkin; rotate two nuts and two seeds each day)
 - Spices: cinnamon, pumpkin spice, cayenne pepper, lemon wedges
 - Beverages: water and herbal tea with lemon wedges and unsweetened plant-based milks

Day 6 – lunch

- Salad bar
 - romaine lettuce leaves, baby Florida greens, kale, spinach, arugula (rotate two greens per salad bar) sliced tomatoes, kidney beans, sliced radishes, sliced cucumbers, shredded carrots, shredded red cabbage, very thinly sliced onions, diced avocado, chick peas, snow peas, tri colored pepper, chopped zucchini, corn, radicchio, dill, parsley
 - lightly sautéed mushrooms in vegetable stock
 - Spices: nutritional yeast, red pepper flakes, dulse/kelp, cayenne pepper, garlic powder, black pepper
 - Nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios and flax, chia, sesame, sunflower, pumpkin; rotate two nuts and two seeds each day)
 - Dressings
- three flavored vinegars
- house-made cashew Cesar salad dressing
 - Soup: garden vegetable soup
 - Entrée: vegetable terrine (roasted vegetable brunoise with mixed beans and dried fruit relish)
 - side green dish
- braised greens and kale with jicama
 - Side starch dish: rosemary roasted purple potatoes
 - Dessert
- cut fruit (pineapple, watermelon, cantaloupe, honeydew, berries)
- whole fruit (apples, oranges, bananas, pears, plums)
 - Beverages
- water and herbal tea with lemon wedges and unsweetened plant-based milks

Day 6 – dinner (Mexican theme)

- Salad bar
 - romaine lettuce leaves, baby Florida greens, kale, spinach, arugula (rotate two greens per salad bar) sliced tomatoes, kidney beans, sliced radishes, sliced cucumbers, shredded carrots, shredded red cabbage, very thinly sliced onions, diced avocado, chick peas, snow peas, tri colored pepper, chopped zucchini, corn, radicchio, dill, parsley
 - lightly sautéed mushrooms in vegetable stock
 - Spices: nutritional yeast, red pepper flakes, dulse/kelp, cayenne pepper, garlic powder, black pepper
 - Nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios and flax, chia, sesame, sunflower, pumpkin; rotate two nuts and two seeds each day)
 - Dressings
- three flavored vinegars
- house-made cashew Cesar salad dressing
 - Soup: black bean bisque
 - Entrée: fajita station
- roasted veggies: zucchini, squash, and mushrooms
- red and green bell peppers and onion
- salsa, guacamole, pinto beans, mango salsa, coconut cilantro cream
- 100% whole wheat soft tortillas
 - Side green dish
- tomato, kale, corn salad
- broccoli and cauliflower
 - Side starch dish: Mexican brown rice
 - Dessert
- avocado chocolate pudding topped with berries and cashew cream
- cut fruit (pineapple, watermelon, cantaloupe, honeydew, berries)
- bowl of hand fruit (apples, oranges, bananas, pears, plums)
 - Beverages
- water and herbal tea with lemon wedges and unsweetened plant-based milks

Day 7 – breakfast

- Grain
 - steel cut plain oatmeal (hot cereal)
 - mixed berry oatmeal (cold cereal)
 - Smoothie: kale, spinach, banana, blueberry
 - Fruit and berries
- berries (blueberries, strawberries, raspberries, blackberries; rotate two of four each day)
- cut fruit (pineapple, watermelon, cantaloupe, honeydew)
- whole fruit (apples, oranges, bananas, pears, plums)
 - Entrée: tempeh hash
 - Greens: romaine leaves and quartered avocado (with skin intact)
 - Nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios and flax, chia, sesame, sunflower, pumpkin; rotate two nuts and two seeds each day)
 - Spices: cinnamon, pumpkin spice, cayenne pepper, lemon wedges

- Beverages: water and herbal tea w/ lemon wedges and unsweetened plant-based milks

Day 7 – lunch

- Salad bar
 - romaine lettuce leaves, baby Florida greens, kale, spinach, arugula (rotate two greens per salad bar) sliced tomatoes, kidney beans, sliced radishes, sliced cucumbers, shredded carrots, shredded red cabbage, very thinly sliced onions, diced avocado, chick peas, snow peas, tri colored pepper, chopped zucchini, corn, radicchio, dill, parsley
 - lightly sautéed mushrooms in vegetable stock
 - Spices: nutritional yeast, red pepper flakes, dulse/kelp, cayenne pepper, garlic powder, black pepper
 - Nuts and seeds (walnuts, almonds, pecans, Brazil nuts, cashews, pistachios and flax, chia, sesame, sunflower, pumpkin; rotate two nuts and two seeds each day)
 - Dressings
 - three flavored vinegars
 - house-made cashew Cesar salad dressing
 - Soup: butternut squash
 - Entrée: whole wheat/gluten free elbow pasta with almond chili sauce, shredded veggies, cilantro, basil and mint
 - Side green dish: grilled asparagus, steamed French green beans and roasted cherry tomatoes
 - Side starch dish: black turtle bean stew with wild rice
 - Dessert
 - cut fruit (pineapple, watermelon, cantaloupe, honeydew, berries)
 - whole fruit (apples, oranges, bananas, pears, plums)
 - Beverages
 - water and herbal tea with lemon wedges and unsweetened plant-based milks

Supplementary Table S1. Microbiome shifts within individual. Pairwise Wilcoxon statistics for MT cohort (N = 22) for all tests conducted. The 20 most abundant taxa at each level were compared (23 families, 23 genera, 27 species, and 24 ASVs). Median relative abundance (as a percentage of the microbiome composition) and percent change of the families, genera, species, and ASVs that differed significantly within-person across the two time points are presented. Taxa that increased or decreased between timepoints are indicated in green and red, respectively, as in Table 3. All taxonomic assignments, including the ASVs, are based on the Silva 138 database. The ASV sequences that were tested are provided in Supplementary Material (Supplementary Table S2). ASV, amplicon sequence variant.

Phylum	Class	Order	Family	Genus	Species	ASV	T1	T2	% Diff	z	p
Family-level											
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae			17.53%	27.83%	10.30%	-3.68	0.0002	
Firmicutes	Clostridia	Oscillospirales	Ruminococcaceae			9.32%	16.97%	7.65%	-3.65	0.0003	
Firmicutes	Clostridia	Monoglobales	Monoglobaceae			0.53%	1.15%	0.62%	-3.53	0.0004	
Actinobacteriota	Coriobacteriia	Coriobacteriales	Eggerthellaceae			0.74%	1.28%	0.55%	-3.07	0.002	
Firmicutes	Negativicutes	Veillonellales-Selenomonadales	Veillonellaceae			0.79%	1.28%	0.49%	-0.08	0.936	
Firmicutes	Clostridia	Christensenellales	Christensenellaceae			0.27%	0.70%	0.43%	-3.28	0.001	
Firmicutes	Clostridia	Oscillospirales	Butyricoccaceae			0.39%	0.75%	0.36%	-2.27	0.023	
Actinobacteriota	Actinobacteria	Bifidobacteriales	Bifidobacteriaceae			0.47%	0.74%	0.27%	-0.63	0.529	
Firmicutes	Bacilli	Erysipelotrichales	Erysipelatoclostridiaceae			0.15%	0.38%	0.23%	-1.93	0.054	
Proteobacteria	Gammaproteobacteria	Enterobacterales	Enterobacteriaceae			0.22%	0.37%	0.15%	-1.67	0.095	
Firmicutes	Clostridia	Peptostreptococcales-Tissierellales	Anaerovoracaceae			0.10%	0.13%	0.03%	-1.32	0.187	
Bacteroidota	Bacteroidia	Bacteroidales	Prevotellaceae			0.07%	0.08%	0.01%	-1.04	0.298	
Bacteroidota	Bacteroidia	Bacteroidales	Barnesiellaceae			0.16%	0.01%	-0.15%	-3.29	0.001	
Proteobacteria	Gammaproteobacteria	Burkholderiales	Sutterellaceae			0.36%	0.21%	-0.15%	-3.61	0.0003	
Bacteroidota	Bacteroidia	Bacteroidales	Marinifilaceae			0.21%	0.04%	-0.17%	-3.85	0.0001	
Desulfobacterota	Desulfovibrionia	Desulfovibrionales	Desulfovibrionaceae			0.21%	0.05%	-0.17%	-3.18	0.001	
Firmicutes	Bacilli	Lactobacillales	Streptococcaceae			0.41%	0.19%	-0.22%	-0.24	0.810	
Firmicutes	Clostridia	Oscillospirales	Oscillospiraceae			2.19%	1.94%	-0.25%	-0.83	0.407	
Actinobacteriota	Coriobacteriia	Coriobacteriales	Coriobacteriaceae			2.10%	1.79%	-0.30%	-0.21	0.834	
Bacteroidota	Bacteroidia	Bacteroidales	Tannerellaceae			0.97%	0.43%	-0.53%	-3.18	0.001	
Bacteroidota	Bacteroidia	Bacteroidales	Rikenellaceae			1.24%	0.58%	-0.67%	-2.49	0.013	
Firmicutes	Negativicutes	Acidaminococcales	Acidaminococcaceae			13.99%	3.12%	-10.88%	-2.24	0.025	
Bacteroidota	Bacteroidia	Bacteroidales	Bacteroidaceae			27.58%	11.83%	-15.75%	-2.81	0.005	
Genus-level											
Firmicutes	Clostridia	Oscillospirales	Ruminococcaceae	Faecalibacterium		6.57%	10.96%	4.39%	-3.36	0.001	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Roseburia		0.50%	2.06%	1.55%	-3.15	0.002	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Lachnospiraceae NK4A136 group		0.33%	1.70%	1.37%	-3.57	0.0004	
Firmicutes	Clostridia	Oscillospirales	Ruminococcaceae	Subdoligranulum		0.60%	1.91%	1.32%	-3.22	0.001	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Anaerostipes		0.63%	1.94%	1.30%	-2.69	0.007	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Agathobacter		2.90%	4.08%	1.18%	-1.64	0.101	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Blautia		2.18%	3.30%	1.12%	-2.55	0.011	
Firmicutes	Clostridia	Oscillospirales	Ruminococcaceae	Ruminococcus		0.80%	1.85%	1.05%	-2.20	0.028	
Firmicutes	Clostridia	Monoglobales	Monoglobaceae	Monoglobus		0.53%	1.15%	0.62%	-3.53	0.0004	
Firmicutes	Negativicutes	Veillonellales-Selenomonadales	Veillonellaceae	Veillonella		0.20%	0.76%	0.55%	-2.36	0.018	
Firmicutes	Clostridia	Christensenellales	Christensenellaceae	Christensenellaceae R-7 group		0.23%	0.69%	0.46%	-3.45	0.001	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Coprococcus		0.79%	1.18%	0.39%	-1.12	0.263	
Firmicutes	Clostridia	Oscillospirales	Butyricoccaceae	Butyricoccus		0.39%	0.75%	0.36%	-2.32	0.020	
Actinobacteriota	Actinobacteria	Bifidobacteriales	Bifidobacteriaceae	Bifidobacterium		0.47%	0.74%	0.27%	-0.63	0.529	
Actinobacteriota	Coriobacteriia	Coriobacteriales	Eggerthellaceae	Adlercreutzia		0.40%	0.65%	0.24%	-2.87	0.004	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Dorea		0.62%	0.74%	0.12%	-0.99	0.322	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Lachnoclostridium		0.65%	0.58%	-0.07%	-0.11	0.912	
Firmicutes	Clostridia	Oscillospirales	Oscillospiraceae	UCG-002		0.65%	0.49%	-0.16%	-0.50	0.617	
Actinobacteriota	Coriobacteriia	Coriobacteriales	Coriobacteriaceae	Collinsella		2.10%	1.79%	-0.30%	-0.21	0.834	
Bacteroidota	Bacteroidia	Bacteroidales	Tannerellaceae	Parabacteroides		0.97%	0.43%	-0.53%	-3.18	0.001	
Bacteroidota	Bacteroidia	Bacteroidales	Rikenellaceae	Alistipes		1.24%	0.53%	-0.72%	-2.49	0.013	
Firmicutes	Negativicutes	Acidaminococcales	Acidaminococcaceae	Phascolarctobacterium		13.99%	3.12%	-10.88%	-2.18	0.029	
Bacteroidota	Bacteroidia	Bacteroidales	Bacteroidaceae	Bacteroides		27.58%	11.83%	-15.75%	-2.81	0.005	

Species-level											
Firmicutes	Clostridia	Oscillospirales	Ruminococcaceae	Faecalibacterium	Faecalibacterium prausnitzii	4.83%	7.47%	2.63%	-3.07	0.002	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Blautia	Blautia obeum	0.33%	0.80%	0.47%	-2.87	0.004	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Anaerostipes	Anaerostipes hadrus	0.35%	0.68%	0.33%	-2.48	0.013	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Lachnospiraceae NK4A136 group	Lachnospiraceae NK4A136 group bacterium	0.10%	0.35%	0.25%	-2.94	0.003	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Roseburia	Roseburia inulinivorans	0.09%	0.29%	0.20%	-0.71	0.478	
Actinobacteriota	Coriobacteriia	Coriobacteriales	Eggerthellaceae	Adlercreutzia	Adlercreutzia equolifaciens	0.11%	0.29%	0.18%	-2.33	0.020	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Roseburia	Roseburia hominis	0.07%	0.22%	0.15%	-3.68	0.0002	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Blautia	Blautia faecis	0.21%	0.35%	0.13%	-3.56	0.0004	
Firmicutes	Negativicutes	Veillonellales-Selenomonadales	Veillonellaceae	Veillonella	Veillonella dispar	0.06%	0.20%	0.13%	-2.13	0.033	
Firmicutes	Clostridia	Oscillospirales	Ruminococcaceae	Ruminococcus	Ruminococcus bromii	0.06%	0.19%	0.13%	-0.37	0.711	
Bacteroidota	Bacteroidia	Bacteroidales	Bacteroidaceae	Bacteroides	Bacteroides thetaiotaomicron	0.35%	0.46%	0.11%	-2.07	0.038	
Actinobacteriota	Actinobacteria	Bifidobacteriales	Bifidobacteriaceae	Bifidobacterium	Bifidobacterium longum	0.09%	0.19%	0.10%	-1.31	0.190	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Dorea	Dorea formicigenerans	0.13%	0.19%	0.05%	-1.85	0.064	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Dorea	Dorea longicatena	0.43%	0.46%	0.03%	-0.40	0.689	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Fusicatenibacter	Fusicatenibacter saccharivorans	0.18%	0.22%	0.03%	-0.11	0.912	
Bacteroidota	Bacteroidia	Bacteroidales	Bacteroidaceae	Bacteroides	Bacteroides ovatus	0.16%	0.11%	-0.05%	-0.07	0.944	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Coproccoccus	Coproccoccus comes	0.23%	0.13%	-0.09%	-2.01	0.044	
Desulfobacterota	Desulfovibrionia	Desulfovibrionales	Desulfovibrionaceae	Bilophila	Bilophila wadsworthia	0.17%	0.03%	-0.13%	-3.15	0.002	
Bacteroidota	Bacteroidia	Bacteroidales	Bacteroidaceae	Bacteroides	Bacteroides caccae	0.32%	0.17%	-0.15%	-2.87	0.004	
Actinobacteriota	Coriobacteriia	Coriobacteriales	Coriobacteriaceae	Collinsella	Collinsella aerofaciens	1.93%	1.78%	-0.16%	-0.28	0.779	
Bacteroidota	Bacteroidia	Bacteroidales	Tannerellaceae	Parabacteroides	Parabacteroides merdae	0.20%	0.01%	-0.19%	-2.10	0.036	
Bacteroidota	Bacteroidia	Bacteroidales	Tannerellaceae	Parabacteroides	Parabacteroides distasonis	0.37%	0.12%	-0.25%	-3.16	0.002	
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Blautia	Blautia massiliensis	0.50%	0.22%	-0.28%	-1.65	0.099	
Bacteroidota	Bacteroidia	Bacteroidales	Rikenellaceae	Alistipes	Alistipes putredinis	0.73%	0.15%	-0.58%	-3.21	0.001	
Bacteroidota	Bacteroidia	Bacteroidales	Bacteroidaceae	Bacteroides	Bacteroides uniformis	4.13%	2.16%	-1.97%	-0.93	0.352	
Bacteroidota	Bacteroidia	Bacteroidales	Bacteroidaceae	Bacteroides	Bacteroides vulgatus	5.71%	2.71%	-3.00%	-2.99	0.003	
Firmicutes	Negativicutes	Acidaminococcales	Acidaminococcaceae	Phascolarctobacterium	Phascolarctobacterium faecium	6.12%	0.47%	-5.65%	-0.87	0.384	
ASV-level											
Firmicutes	Clostridia	Oscillospirales	Ruminococcaceae	Faecalibacterium	Faecalibacterium prausnitzii	13	0.50%	1.49%	0.98%	-3.39	0.001
Firmicutes	Clostridia	Monoglobales	Monoglobaceae	Monoglobus		16	0.37%	1.08%	0.72%	-3.53	0.0004
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Blautia	Blautia obeum	25	0.33%	0.80%	0.47%	-2.87	0.004
Firmicutes	Clostridia	Oscillospirales	Ruminococcaceae	Faecalibacterium		15	0.57%	1.00%	0.43%	-2.13	0.033
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae			20	0.48%	0.86%	0.37%	-3.51	0.0004
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Anaerostipes	Anaerostipes hadrus	32	0.21%	0.53%	0.33%	-2.38	0.017
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae			37	0.24%	0.52%	0.28%	-2.92	0.004
Firmicutes	Clostridia	Oscillospirales	Ruminococcaceae	Faecalibacterium	Faecalibacterium prausnitzii	2	1.57%	1.77%	0.20%	-1.83	0.067
Bacteroidota	Bacteroidia	Bacteroidales	Bacteroidaceae	Bacteroides	Bacteroides thetaiotaomicron	22	0.29%	0.46%	0.17%	-2.00	0.046
Firmicutes	Clostridia	Oscillospirales	Ruminococcaceae	Subdoligranulum		24	0.33%	0.50%	0.17%	-2.21	0.027
Firmicutes	Clostridia	Oscillospirales	Ruminococcaceae	Subdoligranulum		43	0.19%	0.35%	0.16%	-1.94	0.052
Firmicutes	Clostridia	Oscillospirales	Ruminococcaceae	Faecalibacterium	Faecalibacterium prausnitzii	10	1.18%	1.31%	0.12%	-0.12	0.904
Bacteroidota	Bacteroidia	Bacteroidales	Bacteroidaceae	Bacteroides	Bacteroides uniformis	4	0.21%	0.30%	0.08%	-1.36	0.174
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Agathobacter		5	2.07%	2.11%	0.04%	-1.89	0.059
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Dorea	Dorea longicatena	33	0.43%	0.46%	0.03%	-0.40	0.689
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Blautia		18	0.64%	0.54%	-0.10%	-0.32	0.749
Bacteroidota	Bacteroidia	Bacteroidales	Bacteroidaceae	Bacteroides		23	0.36%	0.24%	-0.12%	-1.37	0.171
Actinobacteriota	Coriobacteriia	Coriobacteriales	Coriobacteriaceae	Collinsella	Collinsella aerofaciens	6	1.93%	1.78%	-0.16%	-0.31	0.757
Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	Blautia	Blautia massiliensis	27	0.50%	0.22%	-0.28%	-1.65	0.099
Bacteroidota	Bacteroidia	Bacteroidales	Bacteroidaceae	Bacteroides	Bacteroides uniformis	7	1.06%	0.61%	-0.45%	-2.10	0.036
Bacteroidota	Bacteroidia	Bacteroidales	Rikenellaceae	Alistipes	Alistipes putredinis	40	0.73%	0.15%	-0.58%	-3.21	0.001
Bacteroidota	Bacteroidia	Bacteroidales	Bacteroidaceae	Bacteroides	Bacteroides vulgatus	8	1.28%	0.68%	-0.60%	-2.78	0.005
Bacteroidota	Bacteroidia	Bacteroidales	Bacteroidaceae	Bacteroides	Bacteroides vulgatus	3	2.97%	0.73%	-2.24%	-2.34	0.019
Firmicutes	Negativicutes	Acidaminococcales	Acidaminococcaceae	Phascolarctobacterium	Phascolarctobacterium faecium	1	6.12%	0.47%	-5.65%	-0.87	0.384

Supplementary Table S2. Taxonomic assignment (based on the Silva 138 database) and full sequences for those amplicon sequence variants (ASVs) that contributed significantly to the shifts in the gut microbiome across the two time points.

[illegible]

ASV ID in PIME	Full sequence of amplicon
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[illegible]

Sequences for the top 29 amplicon sequence variants (ASVs) with the greatest contribution to the random forest model in PIME. Taxonomic assignments were derived from the Silva 138 database and used to derive a shortened ID for each ASV. ASV, amplicon sequence variant.

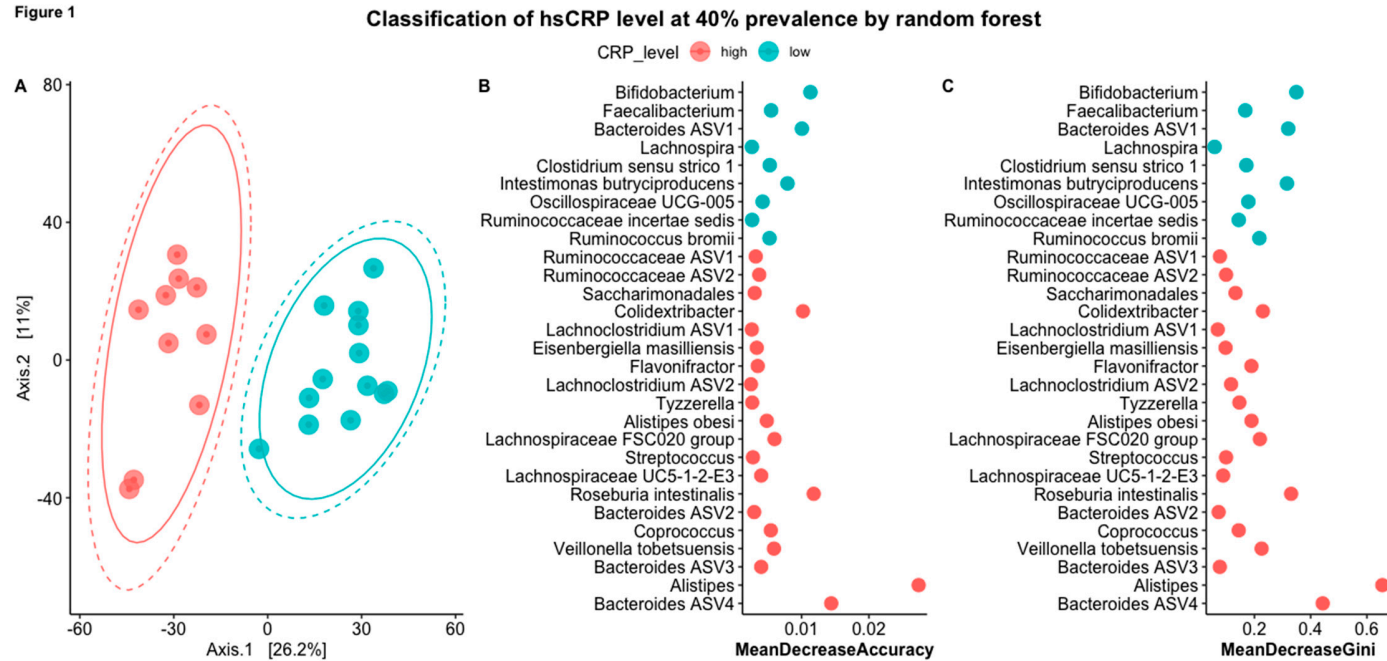
Supplementary Table S4. Amplicon sequence variants contributing to the classification of hsCRP subgroup at T2 at 40% prevalence.

ASV ID in PIME	Phylum	Class	Order	Family	Genus	Species	high	low	MeanDecreaseAccuracy	MeanDecreaseGini	Average (High)	Average (low)	95% CI (high)	95% CI (low)	Mean difference
More abundant in high hsCRP															
Streptococcus	Firmicutes	Basilli	Lactobacillales	Streptococcaceae	<i>Streptococcus</i>		0.00457	0.00145	0.00278	0.09925	0.00030	0.00007	0.00035	0.00007	0.00023
Bacteroides ASV3	Bacteroidota	Bacteroidia	Bacteroidales	Bacteroidaceae	<i>Bacteroides</i>		0.00357	0.00447	0.00401	0.07685	0.00363	0.00192	0.00390	0.00176	0.00171
Alistipes	Bacteroidota	Bacteroidia	Bacteroidales	Rikenellaceae	<i>Alistipes</i>		0.03483	0.02828	0.02739	0.65482	0.00796	0.00027	0.00876	0.00035	0.00769
Alistipes obesi	Bacteroidota	Bacteroidia	Bacteroidales	Rikenellaceae	<i>Alistipes</i>	<i>obesi</i>	0.00367	0.00600	0.00484	0.18951	0.00028	0.00006	0.00016	0.00011	0.00022
Bacteroides ASV4	Bacteroidota	Bacteroidia	Bacteroidales	Bacteroidaceae	<i>Bacteroides</i>		0.01883	0.01352	0.01441	0.44277	0.02721	0.01120	0.01798	0.02157	0.01601
Bacteroides ASV2	Bacteroidota	Bacteroidia	Bacteroidales	Bacteroidaceae	<i>Bacteroides</i>		0.00290	0.00359	0.00297	0.07268	0.00919	0.00836	0.00870	0.00983	0.00083
Saccharimonadales	Patescibacteria	Saccharimoniales	Saccharimonadales				0.00130	0.00450	0.00304	0.13270	0.00003	0.00000	0.00002	0.00000	0.00003
Ruminococcaceae ASV1	Firmicutes	Clostridia	Oscillospirales	Ruminococcaceae			0.00277	0.00407	0.00320	0.07723	0.00007	0.00006	0.00006	0.00008	0.00001
Lachnospiraceae ASV1	Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	<i>Lachnospiraceae</i>		0.00258	0.00279	0.00261	0.06951	0.00012	0.00006	0.00008	0.00007	0.00006
Tyzzerella	Firmicutes	Clostridia	Lachnospirales	Tyzzerellaceae	<i>Tyzzerella</i>		0.00130	0.00450	0.00267	0.14640	0.00081	0.00066	0.00068	0.00083	0.00015
Lachnospiraceae ASV2	Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	<i>Lachnospiraceae</i>		0.00219	0.00319	0.00248	0.11688	0.00020	0.00009	0.00020	0.00016	0.00010
Roseburia intestinalis	Firmicutes	Clostridia	Lachnospirales	Roseburia	<i>Roseburia</i>	<i>intestinalis</i>	0.01390	0.01323	0.01180	0.33039	0.00192	0.00127	0.00119	0.00128	0.00065
Eisenbergiella massiliensis	Firmicutes	Clostridia	Lachnospirales	Eisenbergiellaceae	<i>Eisenbergiella</i>	<i>massiliensis</i>	0.00467	0.00195	0.00335	0.09737	0.00017	0.00011	0.00017	0.00008	0.00006
Lachnospiraceae FSC020 group	Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	<i>Lachnospiraceae</i>	<i>FSC020</i>	0.00633	0.00635	0.00599	0.21928	0.00026	0.00003	0.00027	0.00003	0.00023
Coprococcus	Firmicutes	Clostridia	Lachnospirales	Coprococcaceae	<i>Coprococcus</i>		0.00645	0.00500	0.00543	0.14413	0.00279	0.00193	0.00378	0.00371	0.00086
Lachnospiraceae UC5-1-2-E3	Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	<i>UC5-1-2-E3</i>		0.00440	0.00507	0.00400	0.08860	0.00066	0.00009	0.00045	0.00011	0.00056
Colidextribacter	Firmicutes	Clostridia	Oscillospirales	Oscillospiraceae	<i>Colidextribacter</i>		0.00890	0.01227	0.01021	0.23003	0.00006	0.00002	0.00005	0.00002	0.00004
Flavonifractor	Firmicutes	Clostridia	Oscillospirales	Flavonifractor	<i>Flavonifractor</i>		0.00260	0.00482	0.00349	0.18913	0.00020	0.00012	0.00016	0.00012	0.00008
Veillonella tobetsuensis	Firmicutes	Negativicutes	Veillonellales	Veillonellaceae	<i>Veillonella</i>	<i>tobetsuensis</i>	0.01133	0.00322	0.00590	0.22552	0.00163	0.00032	0.00241	0.00014	0.00132
Ruminococcaceae ASV2	Firmicutes	Clostridia	Oscillospirales	Ruminococcaceae			0.00320	0.00439	0.00372	0.09919	0.00006	0.00005	0.00005	0.00005	0.00001
More abundant in low hsCRP															
Bacteroides ASV1	Bacteroidota	Bacteroidia	Bacteroidales	Bacteroidaceae	<i>Bacteroides</i>		0.00873	0.01107	0.01005	0.32015	0.00483	0.00679	0.00315	0.01271	-0.00197
Lachnospira	Firmicutes	Clostridia	Lachnospirales	Lachnospiraceae	<i>Lachnospira</i>		0.00480	0.00107	0.00262	0.05840	0.00058	0.00145	0.00068	0.00087	-0.00088
Bifidobacterium	Actinobacteria	Actinobacteria	Bifidobacteriales	Bifidobacteriaceae	<i>Bifidobacterium</i>		0.01667	0.00742	0.01132	0.34913	0.00037	0.00253	0.00053	0.00317	-0.00216
Clostridium sensu stricto 1	Firmicutes	Clostridia	Clostridiales	Clostridiaceae	<i>Clostridium sensu stricto</i>		0.00773	0.00422	0.00528	0.17137	0.00007	0.00040	0.00012	0.00051	-0.00033
Faecalibacterium	Firmicutes	Clostridia	Oscillospirales	Ruminococcaceae	<i>Faecalibacterium</i>		0.00717	0.00498	0.00548	0.16750	0.00123	0.00337	0.00147	0.00182	-0.00213
Intestinimonas butyriciproducens	Firmicutes	Clostridia	Oscillospirales	Oscillospiraceae	<i>Intestinimonas butyriciproducens</i>		0.00980	0.00701	0.00791	0.31560	0.00005	0.00032	0.00005	0.00054	-0.00026
Oscillospiraceae UCG-005	Firmicutes	Clostridia	Oscillospirales	Oscillospiraceae	<i>UCG-005</i>		0.00690	0.00277	0.00422	0.17837	0.00003	0.00023	0.00005	0.00016	-0.00020
Ruminococcaceae incertae sedis	Firmicutes	Clostridia	Oscillospirales	Ruminococcaceae	<i>incertae sedis</i>		0.00583	0.00124	0.00265	0.14429	0.00004	0.00011	0.00004	0.00010	-0.00007
Ruminococcus bromii	Firmicutes	Clostridia	Oscillospirales	Ruminococcaceae	<i>Ruminococcus bromii</i>		0.00510	0.00560	0.00524	0.21753	0.00135	0.00140	0.00095	0.00116	-0.00005

Statistics accompanying the PIME analysis including the top 29 amplicon sequence variants (ASVs) that contributed to the random forest classification of hsCRP clinical group at T2. Taxonomic assignment for the ASV is listed according to the Silva 138 database.

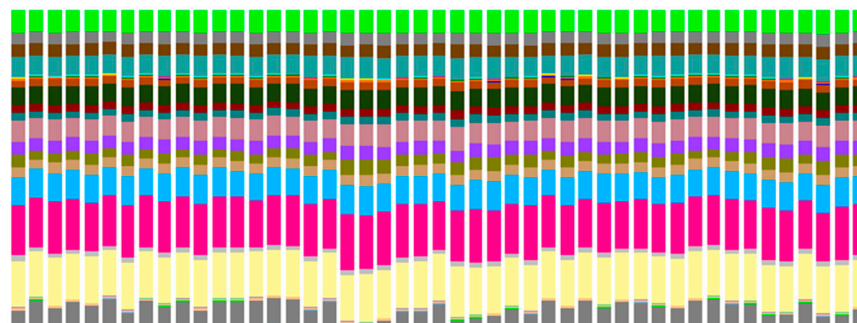
Supplementary Figure S1.

Figure 1



Distinct microbial communities present at 40% prevalence in low hsCRP and high hsCRP groups at T2. A) PCoA representation of the 240 microbial taxa that remained in the hsCRP high (N=10) and hsCRP low at T2 (N=13) groups at 40% prevalence (OOB error rate of 4.35%). Before filtering based on prevalence, there were a total 312 ASVs observed in at least five individuals (approximately 20% of the cohort), and 745 ASVs present in at least three individuals. Thus, this represents the microbial community after removing the least prevalent ASVs (124 ASVs removed) from those that were not present in at least 20% of the cohort. Ellipses represent the 95% confidence interval. CRP, C-reactive protein. B) Mean decrease accuracy for the top 29 ASVs in the classification, C) Mean Decrease Gini for the top 29 ASVs in the classification.

Supplementary Figure S2. PICRUSt functional profiles across time



- Cellular Processes:Cell Communication
- Cellular Processes:Cell Growth and Death
- Cellular Processes:Cell Motility
- Cellular Processes:Transport and Catabolism
- Environmental Information Processing:Membrane Transport
- Environmental Information Processing:Signal Transduction
- Environmental Information Processing:Signaling Molecules and Interaction
- Genetic Information Processing:Folding, Sorting and Degradation
- Genetic Information Processing:Genome Replication and Repair
- Genetic Information Processing:Transcription
- Genetic Information Processing:Translation
- Human Diseases:Cancers
- Human Diseases:Cardiovascular Diseases
- Human Diseases:Immune System Diseases
- Human Diseases:Infectious Diseases
- Human Diseases:Metabolic Diseases
- Human Diseases:Neurodegenerative Diseases
- Metabolism:Amino Acid Metabolism
- Metabolism:Biosynthesis of Other Secondary Metabolites
- Metabolism:Carbohydrate Metabolism
- Metabolism:Energy Metabolism
- Metabolism:Enzyme Families
- Metabolism:Glycan Biosynthesis and Metabolism
- Metabolism:Lipid Metabolism
- Metabolism:Metabolism of Cofactors and Vitamins
- Metabolism:Metabolism of Other Amino Acids
- Metabolism:Metabolism of Terpenoids and Polyketides
- Metabolism:Nucleotide Metabolism
- Metabolism:Xenobiotics Biodegradation and Metabolism
- Organismal Systems:Circulatory System
- Organismal Systems:Digestive System
- Organismal Systems:Endocrine System
- Organismal Systems:Environmental Adaptation
- Organismal Systems:Excretory System
- Organismal Systems:Immune System
- Organismal Systems:Nervous System
- Organismal Systems:Sensory System
- Unclassified:Cellular Processes and Signaling
- Unclassified:Genetic Information Processing
- Unclassified:Metabolism
- Unclassified:Poorly Characterized