tRNA and rRNA base modification

Toxin production and resistance

Sporulation and germination Small molecule interactions

Role category not yet assigned

Riboflavin, FMN, and FAD Restriction/modification

Pyruvate dehydrogenase

Pyridine nucleotides

Protein interactions

Prophage functions

Plasmid functions Photosynthesis

**Pathogenesis** 

Polyamine biosynthesis

Phosphorus compounds Pentose phosphate pathway

One-carbon metabolism

Nitrogen metabolism Nitrogen fixation Molybdopterin

Menaquinone and ubiquinone

Glycolysis/gluconeogenesis Glutathione and analogs

Heme, porphyrin, and cobalamin

Enzymes of unknown specificity

DNA-dependent RNA polymerase

Chromosome-associated proteins Chlorophyll and bacteriochlorphyll

DNA replication, recombination, and repair

Degradation of proteins, peptides, and glycopeptides

Pantothenate and coenzyme A

Salvage of nucleosides and nucleotides

Pyrimidine ribonucleotide biosynthesis

Purine ribonucleotide biosynthesis Protein modification and repair

Protein folding and stabilization

Protein and peptide secretion and trafficking

Nucleotide and nucleoside interconversions

Nucleosides, purines and pyrimidines

Ribosomal proteins: synthesis and modification

tRNA aminoacylation

Transposon functions

Two-component systems

Unknown substrate

Translation factors
Transcription factors

Surface structures Sulfur metabolism

Serine family

RNA processing Pyruvate family

Pyridoxine

**Porins** 

PTS Other

Lipoate

General Folic acid Fermentation

Domain

Detoxification

Degradation

Histidine family

Glutamate family

Entner-Doudoroff Electron transport

Degradation of RNA Degradation of DNA

DNA transformation

**DNA** interactions

Conserved Conjugation

Thiamine TCA cycle

Sugars