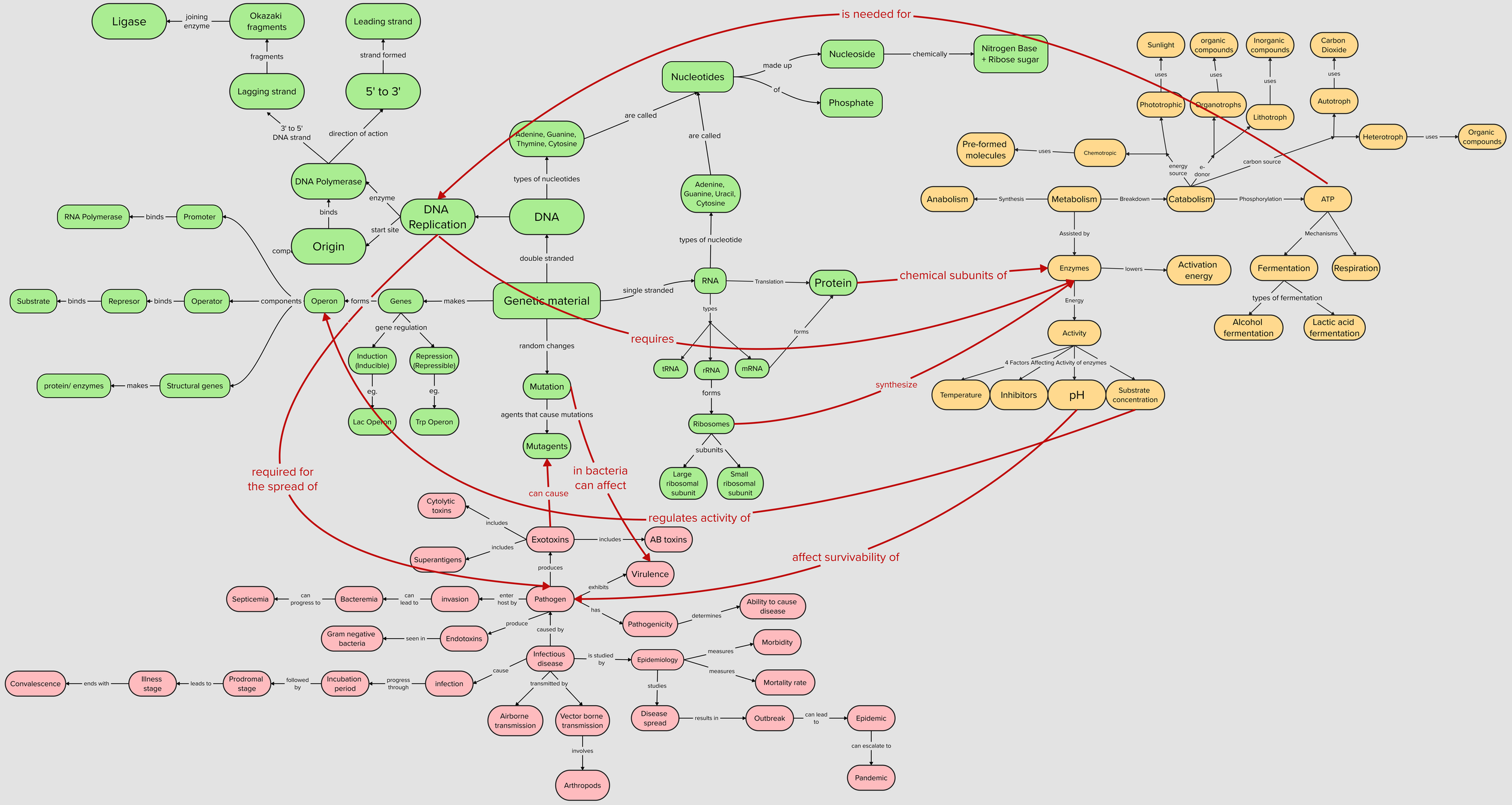
Ligase
joining enzyme
Okazaki fragments
Leading strand
fragments
strand formed
Lagging strand
5' to 3'
3' to 5' DNA strand
direction of action
DNA Polymerase
enzyme
binds
start site
Origin
RNA Polymerase
binds
Promoter
DNA Replication
DNA
Adenine, Guanine, Thymine, Cytosine
types of nucleotides
are called
Nucleotides
made up
of
Nucleoside
chemically
Nitrogen Base + Ribose sugar
Phosphate
Adenine, Guanine, Uracil, Cytosine
types of nucleotide
double stranded
Genetic material
single stranded
RNA
Translation
Protein
types
tRNA
rRNA
mRNA
forms
Ribosomes
subunits
Large ribosomal subunit
Small ribosomal subunit
Substrate
binds
Represor
binds
Operator
components
Operon
forms
Genes
makes
gene regulation
Induction (Inducible)
Repression (Repressible)
eg.
Lac Operon
Trp Operon
protein/ enzymes
makes
Structural genes
random changes
Mutation
agents that cause mutations
Mutagents
is needed for
requires
chemical subunits of
synthesize
required for the spread of
can cause
in bacteria can affect
regulates activity of
affect survivability of
Sunlight
organic compounds
Inorganic compounds
Carbon Dioxide
uses
Phototrophic
Organotrophs
Lithotroph
Autotroph
Heterotroph
Organic compounds
Pre-formed molecules
Chemotropic
energy source
e- donor
carbon source
Anabolism
Synthesis
Metabolism
Breakdown
Catabolism
Phosphorylation
ATP
Assisted by
Mechanisms
Enzymes
lowers
Activation energy
Fermentation
Respiration
Energy
types of fermentation
Alcohol fermentation
Lactic acid fermentation
Activity
4 Factors Affecting Activity of enzymes
Temperature
Inhibitors
pH
Substrate concentration
Cytolytic toxins
includes
Exotoxins
includes
AB toxins
Superantigens
includes
produces
Virulence
exhibits
Septicemia
can progress to
Bacteremia
can lead to
invasion
enter host by
Pathogen
has
Pathogenicity
determines
Ability to cause disease
Gram negative bacteria
seen in
Endotoxins
produce
caused by
Infectious disease
is studied by
Epidemiology
measures
Morbidity
measures
Mortality rate
studies
Convalescence
ends with
Illness stage
leads to
Prodromal stage
followed by
Incubation period
progress through
infection
cause
transmitted by
Airborne transmission
Vector borne transmission
involves
Arthropods
Disease spread
results in
Outbreak
can lead to
Epidemic
can escalate to
Pandemic