

Clinical application of GcMAF Forte



IMMI

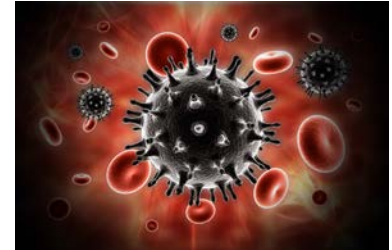
www.immi24.com

info@immi24.com

Introduction to GcMAF Forte

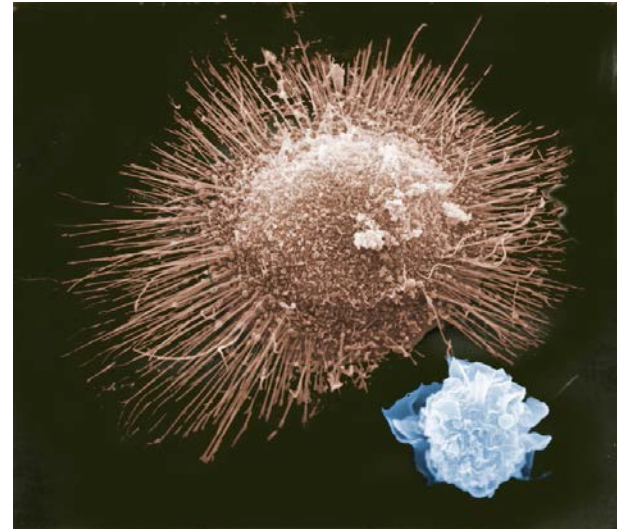
Gc protein-derived Macrophage Activating Factor

- What are macrophages?
- What is GcMAF Forte?
- **GcMAF-Forte**
 - No Side Effects
 - Contains No Human Materials
- What's new on GcMAF Forte therapy?
 - 10.000ng - once a week treatment
- How is GcMAF Forte used?
 - Cancer
 - Infectious diseases
 - Hair regrowth
 - Allergies
 - Chronic fatigue syndrome (CFS)
 - Multiple sclerosis (MS)
 - Rheumatoid arthritis (RA)

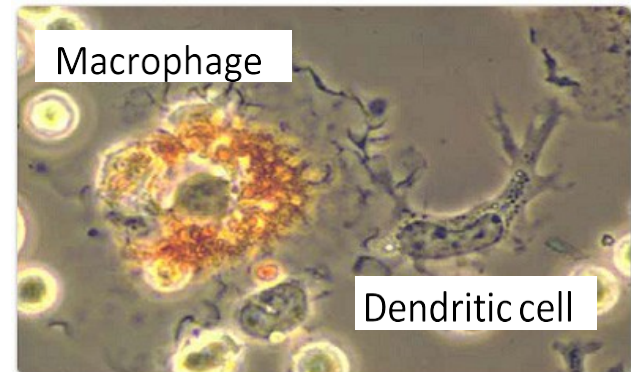


Macrophage morphology

- Macrophages are hungry white blood cells
- They engulf invading bacteria and target cells
- Move like amoebas
- Found in essentially all tissues

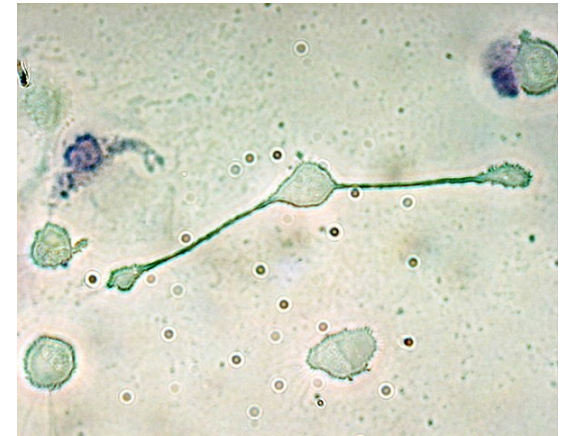


Adherent macrophage (peripheral blood). Universitätsklinik Ulm



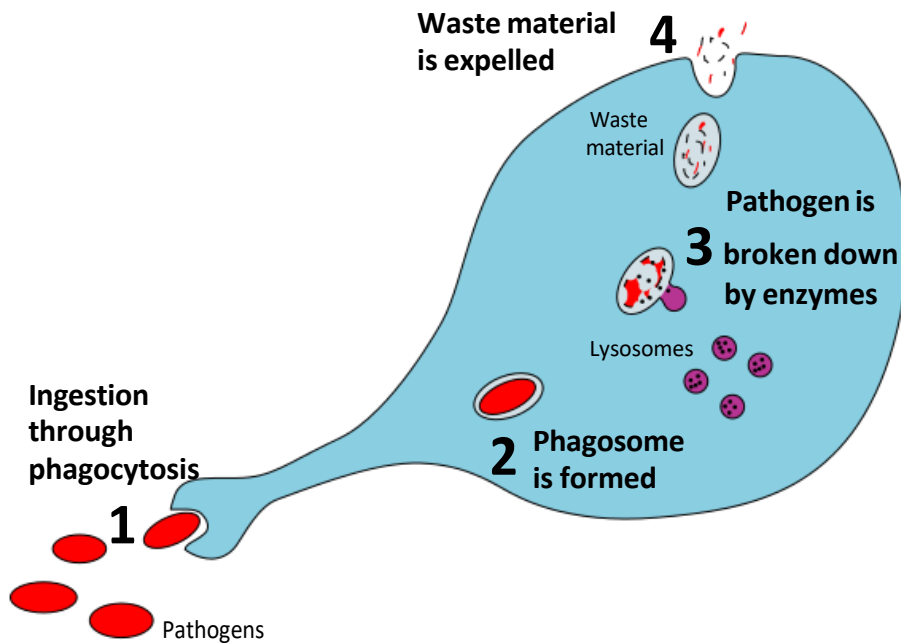
Macrophage functions

- Phagocytosis: Detecting, engulfing and destroying pathogens
- Removal of dying or dead cells and cellular debris
- Scavenging worn-out cells and other debris
- Critical role in adaptive immunity
- Wound healing, tissue repair and regeneration

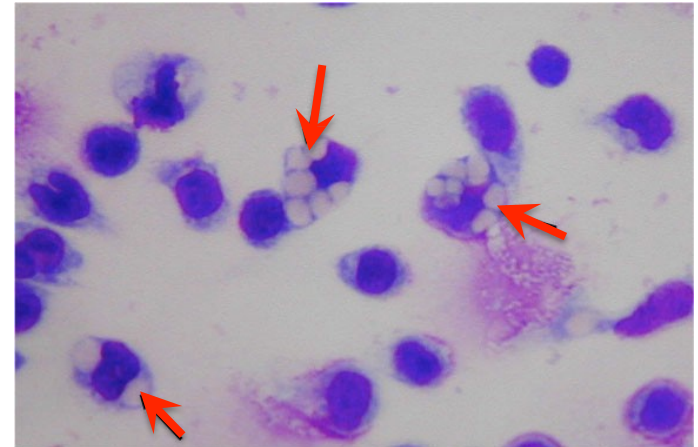


A macrophage of a mouse stretching its "arms" (pseudopodia) to engulf two particles, possibly pathogens. Wikipedia

Macrophage phagocytosis

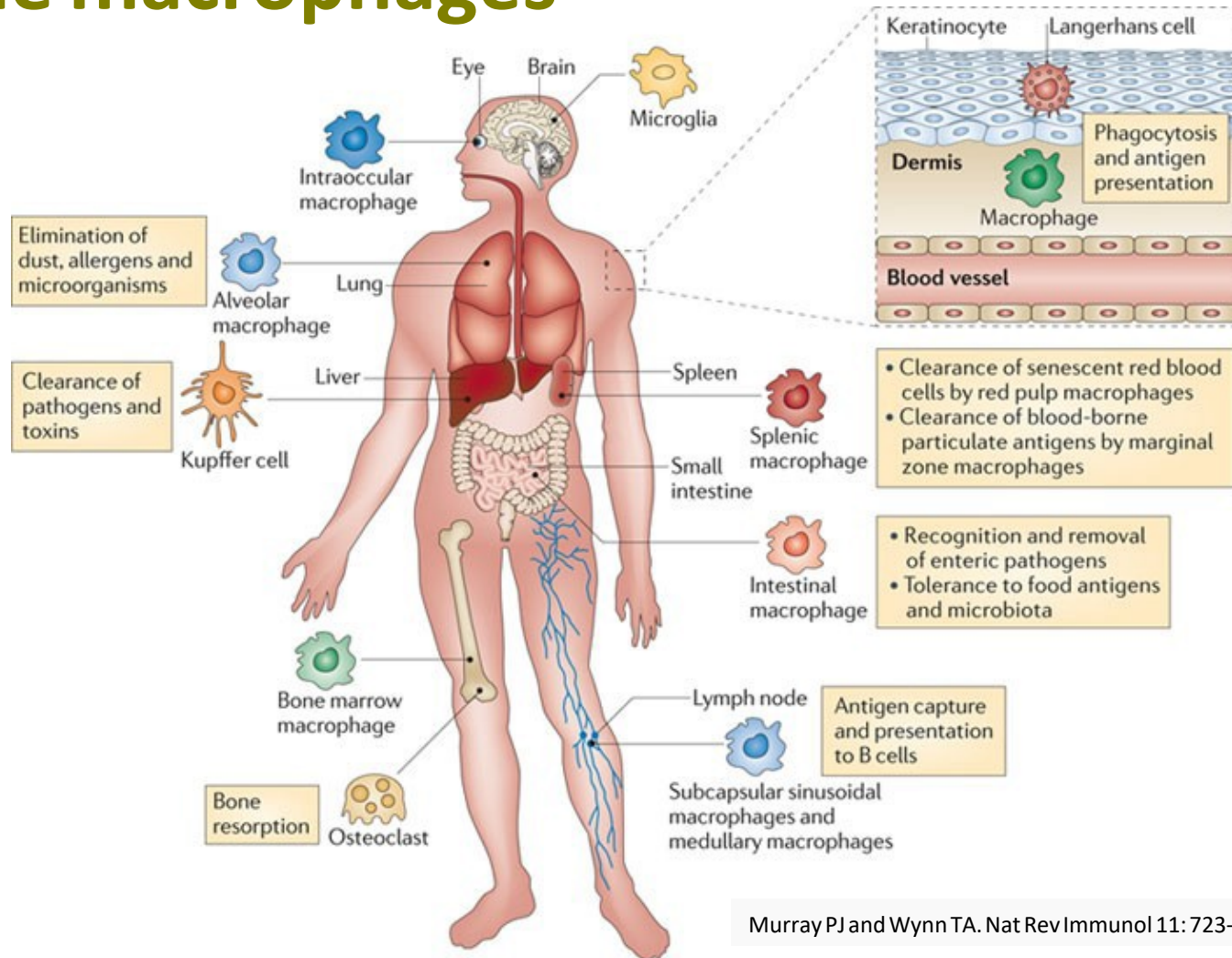


Steps of a macrophage ingesting a pathogen by phagocytosis.



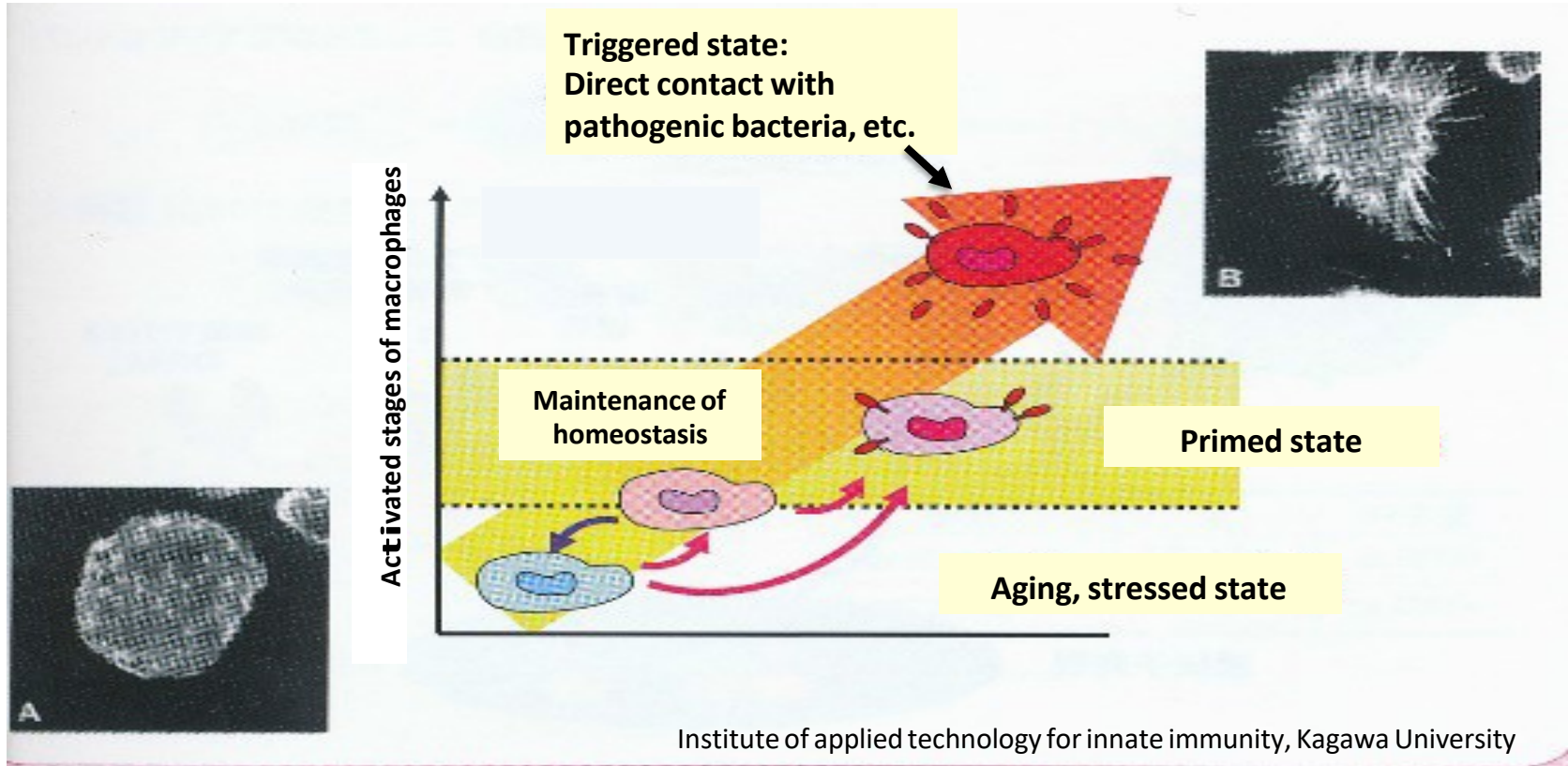
Phagocytosis assay with Second Generation GcMAF. Arrows indicate cells internalized by macrophages.

Tissue macrophages



- Macrophages exist in nearly all tissues
- Tissue resident macrophages play critical roles in repair and regeneration of each tissue

Macrophage activation steps



- **Triggered state:** Macrophages are fighting against pathogens, producing cytokines
- **Primed state:** Macrophages are “getting ready” against pathogens, without producing cytokines
- **Aged, stressed state:** Macrophages are not getting ready, even if pathogens are invading the body

GcMAF Forte Therapy

GcMAF Forte

- Developed for IMMI
- High concentration (10.000 ng/2 ml, 1 dose)
- Significantly higher stability and macrophage activating activity
- Sterilization process using non-human material
- New patented product



GcMAF Forte

Gut immunity and new findings

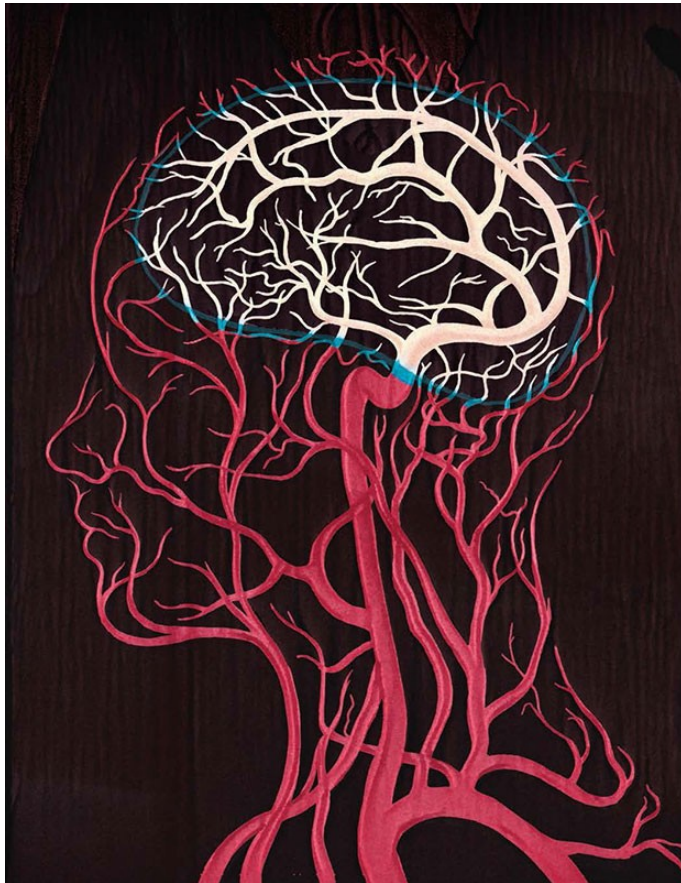
- Gut bacteria have an intricate relationship with our immune system
- They play a critical role in training immune cells
- Important to the development of immune cells, known as **T helper 17 cells**
- The bacterium *Prevotella copri* was present in 75% of rheumatoid arthritis patients, causing inflammation in the gut
- Gut bacteria may be linked to allergy, obesity, rheumatoid arthritis and autoimmune diseases

Targeting the Blood-Brain Barrier

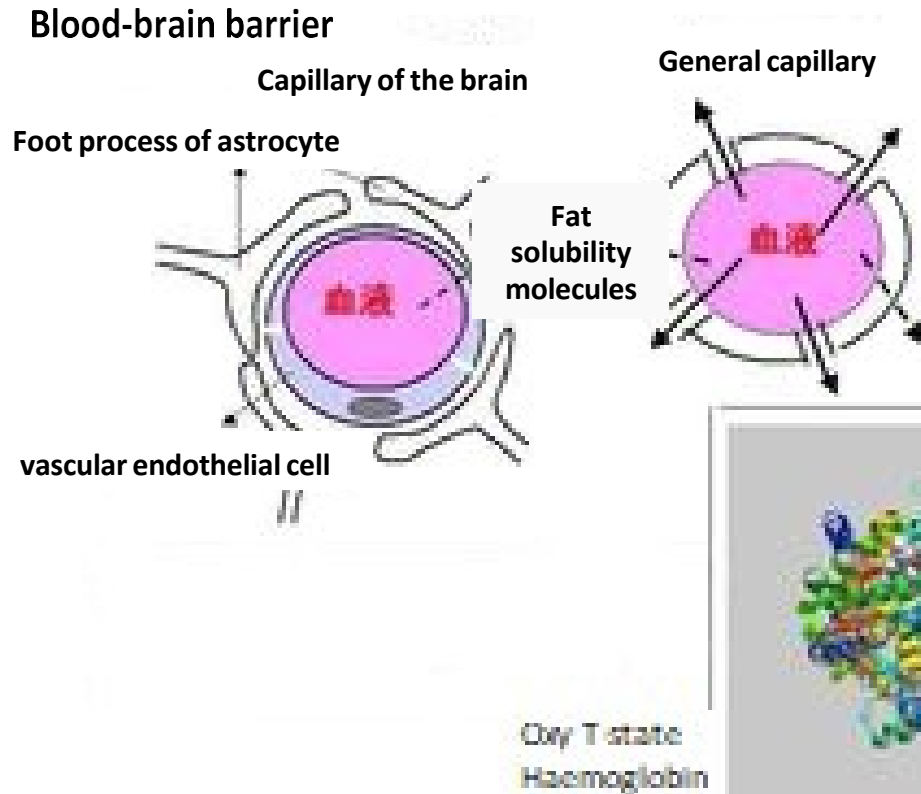
- The advent of two-photon microscopy made it possible to watch the blood-brain barrier in a living, breathing mouse
- **Microglia** are resident macrophages that patrol the brain and spinal cord for damaged cells and infectious agents
- Microglia also may protect and repair the blood-brain barrier as tight junctions
- Malfunctioning microglia could lead to a wide variety of neurodegenerative diseases, from Alzheimer's to Parkinson's
- Multiple Sclerosis (MS) is caused by the breakdown of myelin, a rubbery sheath of neurons
- MRI studies suggest breaches in the blood-brain barrier precipitate MS attacks, allowing too many white blood cells to cross the blood-brain barrier, attacking the myelin

Targeting the Blood-Brain Barrier

Neurosurgeons' group at Tokushima University showed that GcMAF can activate microglia in the brain using a mice model of cerebral infarction



ScientificAmerican, June2013



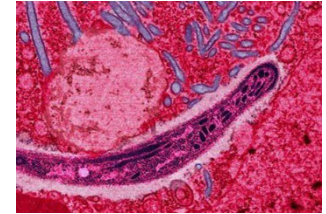
Commonly observed clinical effects GcMAF Forte

- Improved sleep, more energy; reduced fatigue
- Improved digestion, reduced nocturnal urination
- Improved hair regrowth and reduced hair loss due to natural ageing
- Improved skin condition & smoothness
- Improved control or curing of infectious diseases such as virus, bacteria and other pathogens
- Reduced allergy symptoms, pollinosis and atopy

Current indications for GcMAF

- Various infectious diseases
 - Many acute infectious diseases
 - Many chronic infectious diseases
- Cancer
- Multiple sclerosis (MS)
- Rheumatoid arthritis (RA)
- Lyme disease
- Chronic fatigue syndrome (CFS)
- Autism
- Autoimmune diseases
- Alopecia, hair loss
- Atopic dermatitis
- Pollinosis
- Skin rejuvenation (repair, anti-aging effects)
- Psoriasis

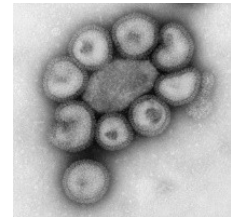
Malaria parasite



Ebola virus

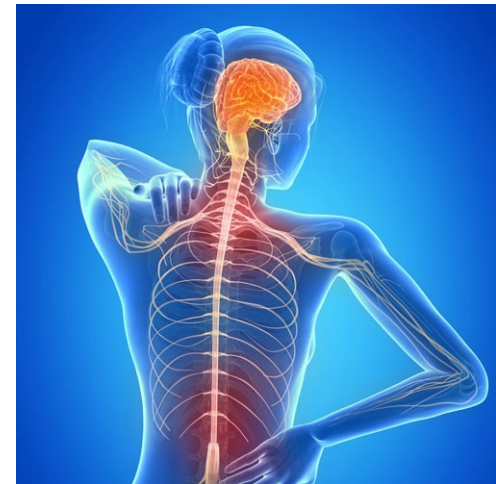


Influenza virus



New possible indications for GcMAF

- Alzheimer's disease
- Dementia
- Brain degenerative disease, such as Parkinson's disease
- Epilepsy





Thank you

IMMI-Ignatius Massop Medical Information

Head Office:

IMMI24 BV

Emmerikseweg 19b

7041AV 's-Heerenberg Netherlands

Tel: +31 85 303 5748

Fax: +31 85 303 5749

Website: www.immi24.com

Email: info@immi24.com