PROGRESSIVE MS TRIALS

Updated May 2017. This list highlights notable trials in progressive MS but is not inclusive of all studies.

Abbreviations Key:
ECTRIMS – European Committee of Treatment and Research in MS
IM – intramuscular, injected into muscle
IV – IV, injected into vein
MED – medical therapy, including medications and medical procedures
PP – primary progressive
REHAB – rehabilitation intervention
RR – relapsing-remitting
SC – subcutaneous, injected under the skin
SP – secondary progressive

AGENT	TYPE OF INTER-VENTION	PURPOSE OF STUDY	POSSIBLE MECHANISM	HOW THERAPY IS GIVEN	TYPE OF MS/NUM-BER OF SUB-JECTS	STATUS/RESULTS
ACTHAR® GEL (REPOSITORY CORTICOTROPIN INJECTION)	MED	slow progression	reduces inflammation in central nervous system	SC	SP, PP/100	Recruiting; read more https://clinicaltrials.gov/ct2/show/NCT01950234
ANDRO-GRAPHOLIDES (HERBACEOUS PLANT, INNO-BIOSCIENCE SPA)	MED	slow progression of brain tissue volume loss	may protect nerves from damage	oral	SP/60	Ongoing, not recruiting, per communication with investigator.

AGENT	TYPE OF INTER-VENTION	PURPOSE OF STUDY	POSSIBLE MECHANISM	HOW THERAPY IS GIVEN	TYPE OF MS/NUM-BER OF SUB-JECTS	STATUS/RESULTS
BIIB033 (ANTI-LINGO-1)	MED	assess efficacy, safety, tolerability, and pharma-cokinetics, when used with Avonex	may repair nerve cells	IV	RR, SP/419	Completed, did not meet primary endpoint. Read more: http://www.nationalmssociety.org/About-the-Society/News/%E2%80%8BResults-Announced-from-Phase-2-Myelin-Repair-Tria
DIMETHYL FUMARATE (TECFIDERA®, BIOGEN)	MED	evaluate safety and effective-ness	Immune-modulatory, may protect nerve cells	oral	PP/90	Recruiting; read more https://clinicaltrials.gov/ct2/show/NCT02959658
DOMPERIDONE	MED	prevent worsening of walking	increases prolactin, which may promote myelin repair	oral	SP/62	Recruiting; read more https://clinicaltrials.gov/ct2/show/NCT02308137
EPIGALLO-CATECHIN-GALLATE (SUNPHENON®, TAIYO INTERNATIONAL FOOD)	MED	determine effects on brain tissue volume loss	may interfere with T cell growth and function, and protect against neuronal injury (Sunphenon)	oral	SP, PP/60	Completed, awaiting publication of results. Read more http://clinicaltrials.gov/ct2/show/NCT00799890

AGENT	TYPE OF INTER-VENTION	PURPOSE OF STUDY	POSSIBLE MECHANISM	HOW THERAPY IS GIVEN	TYPE OF MS/NUM-BER OF SUB-JECTS	STATUS/RESULTS
ESTRIOL	MED	improve cognition	may improve nerve impulse transmission.	oral	RR,SP,PP /64	Recruiting; read more: http://clinicaltrials.gov/show/NCT01466114
EYE MOVEMENT RETRAINING	REHAB	improve mobility	may improve walking and balancing	eye movement retraining	SP,PP/30	Funded by the National MS Society jointly with other International Progressive MS Alliance members. Completed, 0culomotor training can improve eye hand co-ordination but not clinical functional measures. Read more http://onlinelibrary.ectrims-congress.eu/ectrims/2016/32nd/146627/jonathan.marsden.oculomotor.re-training.in.people.with.progressive.multiple.html?f=m3
FUNCTIONAL ELECTRICAL STIMULATION	REHAB	improve walking	low-level electrical impulses to the peroneal nerve signal leg muscles to lift foot	FES cycling	SP/20	Recruiting; read more https://clinicaltrials.gov/ct2/show/NCT01647321
GAIT TRAINING	REHAB	improve walking	Electro-mechanically-assisted gait training system	G-EO system	SP,PP/20	Ongoing, no further information available. Funded by the National MS Society

AGENT	TYPE OF INTER-VENTION	PURPOSE OF STUDY	POSSIBLE MECHANISM	HOW THERAPY IS GIVEN	TYPE OF MS/NUM-BER OF SUB-JECTS	STATUS/RESULTS
GZ402668 (NEXT GENERATION ANTI-CD52 ANTIBODY, SANOFI GENZYME)	MED	test safety and tolerability of sub-cutaneous and intravenous ad-ministration	targets CD52 antigen expressed on B and T cells	SC, IV	SP, PP/48	Completed, awaiting publication of results. Read more https://clinicaltrials.gov/ct2/show/NCT02282826
HYDROXY-CHLOROQUIN E	MED	improve walking	decreases activity of microglia	oral	PP/35	Recruiting; read more https://clinicaltrials.gov/ct2/show/NCT02913157
IBUDILAST	MED	stop progression	may protect nervous system	oral	SP, PP/250	Ongoing, not recruiting; read more http://clinicaltrials.gov/ct2/show/NCT01982942
IDEBENONE	MED	determine effect on disease activity	acts as a potent antioxidant; potentially also anti-inflammatory	oral	PP/82	Ongoing, not recruiting. Read more https://clinicaltrials.gov/show/NCT00950248
LAQUINIMOD (TEVA PHARMACEUTI CAL INDUSTRIES AND ACTIVE BIOTECH)	MED	reduce brain tissue volume loss	Immune-modulatory	oral	PP/375	Ongoing, not recruiting, read more https://clinicaltrials.gov/ct2/show/NCT02284568. (Higher dose discontinued due to occurrence of cardiovascular events, per company press release, January 4, 2016.)

AGENT	TYPE OF INTER-VENTION	PURPOSE OF STUDY	POSSIBLE MECHANISM	HOW THERAPY IS GIVEN	TYPE OF MS/NUM-BER OF SUB-JECTS	STATUS/RESULTS
LIPOIC ACID	MED	determine effects on protecting the brain and slowing disability	activates cAMP signaling pathways	oral	SP/56	Completed, safe and tolerated, and reduced brain atrophy in lipoic acid group. Read more http://www.neurology.org/content/86/16_Supplement/P1.373
MASITINIB (AB SCIENCE)	MED	determine safety and effective-ness in reducing disease activity	inhibits the survival, migration and activity of mast cells	oral	SP,PP/450	Recruiting; per communication with primary investigator.
MIS416 (INNATE IMMUNO-THERAPEUTICS)	MED	improve neuro-muscular function	microparticle derived from bacteria that stimulates immune response	IV	SP/90	Ongoing, not recruiting, read more https://clinicaltrials.gov/ct2/show/NCT02228213
MODIFIED STORY MEMORY TECHNIQUE	REHAB	reduce new learning and memory deficits	helps people to learn new information and remember older information using imagery and context	cognitive rehab-ilitation	SP,PP/48	Funded by the National MS Society jointly with other International Progressive MS Alliance members. No further information available.

AGENT	TYPE OF INTER-VENTION	PURPOSE OF STUDY	POSSIBLE MECHANISM	HOW THERAPY IS GIVEN	TYPE OF MS/NUM-BER OF SUB-JECTS	STATUS/RESULTS
MS SMART (THREE THERAPIES WITH NERVE-PROTECTING POTENTIAL: FLUOXETINE, AMILORIDE, AND RILUZOLE)	MED	slow or stop MS progression	may protect nerves from damage	oral	SP/440	Ongoing, not recruiting, read more http://clinicaltrials.gov/ct2/show/NCT01910259
NEUROVAX™ (TCR PEPTIDE VACCINE, IMMUNE RESPONSE BIOPHARMA)	MED	determine effect on disease activity	enhances regulatory T cells and regulates disease-causing T cells	IM	SP/200	Not yet recruiting, read more https://clinicaltrials.gov/ct2/show/NCT02057159
NEUROVAX™ (TCR PEPTIDE VACCINE, IMMUNE RESPONSE BIOPHARMA)	MED	slow or stop MS progression	enhances regulatory T cells and regulates disease-causing T cells	IM	SP/150	Not yet recruiting, read more https://clinicaltrials.gov/ct2/show/NCT02149706

AGENT	TYPE OF INTER-VENTION	PURPOSE OF STUDY	POSSIBLE MECHANISM	HOW THERAPY IS GIVEN	TYPE OF MS/NUM-BER OF SUB-JECTS	STATUS/RESULTS
OXCARBAZEPINE	MED	evaluate effective-ness in slowing disease prog-ression, also known as PROXIMUS study	possibly neuro-protective	oral	SP/60	Recruiting; read more https://clinicaltrials.gov/ct2/show/NCT02104661. The National MS Society is funding a study of a possible biomarker for the success of neuroprotective therapies within this trial.
RITUXIMAB	MED	evaluate the safety and effective-ness of combined IV and intrathecal rituximab, also known as RIVITaLISe study	binds to CD20 antigen on B cells and induces B-cell breakdown	IV, intrathecal	SP/440	Terminated because of lack of efficacy of biomarkers. Read more http://clinicaltrials.gov/ct2/show/NCT01212094.
RITUXIMAB	MED	evaluate the safety and effective-ness	binds to CD20 antigen on B cells and induces B-cell breakdown	intrathecal	SP,PP/12	Funded by the National MS Society jointly with other International Progressive MS Alliance members. Recruiting; read more https://clinicaltrials.gov/ct2/show/NCT02253264

AGENT	TYPE OF INTER-VENTION	PURPOSE OF STUDY	POSSIBLE MECHANISM	HOW THERAPY IS GIVEN	TYPE OF MS/NUM-BER OF SUB-JECTS	STATUS/RESULTS
RITUXIMAB WITH CEREBRAL MICRODIALYSIS	MED	test safety and effective-ness, and study immune messenger chemicals inside the brain	binds to CD20 antigen on B cells and induces B-cell lysis	intrathecal	SP,PP/20	Funded by the National MS Society jointly with other International Progressive MS Alliance members. Completed, awaiting publication of results. Read more https://clinicaltrials.gov/ct2/show/NCT01719159
SIMVASTATIN	MED	testing neuro-protection, also known as MS-STAT2	possibly neuro-protective	oral	SP/1180	Not yet recruiting. The Society is co-funding this trial in collaboration with other agencies and organizations.
SIPONIMOD	MED	evaluate safety and effective-ness	selective modulator of sphingosine-1-phosphate receptors	oral	SP, 1530	Recruiting, read more: http://clinicaltrials.gov/ct2/show/NCT01665144
STEM CELLS (AUTOLOGOUS BONE MARROW-DERIVED CELLULAR THERAPY)	MED	determine repair in progressive MS, also known as ACTiMuS Study	improve nerve impulse conduction	IV	Prog-ressive/80	Recruiting; read more https://clinicaltrials.gov/ct2/show/NCT01815632

AGENT	TYPE OF INTER-VENTION	PURPOSE OF STUDY	POSSIBLE MECHANISM	HOW THERAPY IS GIVEN	TYPE OF MS/NUM-BER OF SUB-JECTS	STATUS/RESULTS
TASK-ORIENTED UPPER LIMB TRAINING	REHAB	improve upper limb function	practicing tasks to acquire or reacquire a skill	Symbio Therapy or Tyromotion	SP,PP/98	Recruiting; read more https://clinicaltrials.gov/ct2/show/NCT02688231
TCELNA™ (IMILECLEUCEL-T, OPEXA THERAPEUTICS)	MED	determine effective-ness in reducing disability prog-ression, also known as Abili-T study	experimental T-cell treatment made with a person's own immune cells (autologous T-cell immune-therapy)	SC	SP 180	Completed, did not meet primary endpoint, per company press release, October 28, 2016.
TESTOSTERONE	MED	reduce brain tissue volume loss	possibly neuro-protective	Trans-dermal	RR,SP,PP/114	Withdrawn, due to lack of funding, read more https://clinicaltrials.gov/ct2/show/NCT02317263
VIDEO GAME BASED TREATMENT	REHAB	improve arm strength	constraint-induced therapy based virtual reality intervention	computer gaming rehab-ilitation platform	PP/16	Completed; self-reported fatigue decreased significantly, motor speed did not significantly improve, large change in perceived quality of arm use for daily activities, per report from primary investigator.