**Table 1**: Novel Immune Therapies for Treatment of Myasthenia Gravis

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| Agent | Action | FDA approval/  Ongoing trials | MG serology and type | Route | Dosage and interval | Main safety concerns | Remarks |
| Eculizumab | C5 inhibitor | FDA approved | AChR positive  gMG | IV | 900mg weekly x 4 weeks, followed by 1200mg every alternate weeks | Neisseria meningitis, infections | Vaccinate at least 2 weeks prior(28) |
| Zilucoplan | C5 inhibitor | Ongoing phase III trial(RAISE) in MG,(33) FDA orphan drug approval | AChR positive  gMG | SC | 0.3mg/kg daily | Concerns of meningitis |  |
| Ravulizumab | High affinity C5 inhibitor | Ongoing phase III trial in MG(37) | Unspecified gMG | IV | Weight based 2400-3000mg every 15 days | Headache | FDA approved for PNH, |
| Efgartigimod | FcRn blocker | Ongoing phase III trial(44) | AChR positive gMG | IV | 10mg/kg weekly | Headache, reduced monocyte count |  |
| Nipocalimab | High affinity FcRn blocker | Ongoing phase II(46) | UnspecifiedgMG | IV | Every 2 weeks (multiple doses, under phase II study) |  | Potentially safe in pregnancy |
| Rozanolixizumab | High affinity FcRn blocker | Ongoing phase II(51) | AChr or MuSK positive gMG | SC | 7mg/kg once a week | Headache forcing withdrawal, | No increased infection in trials |
| RVT 1401 | FcRn blocker | Ongoing phase II(53) | AChR positive | SC or IV | 340mg/680mg weekly for 4 weeks followed by 340mg every 2 weeks | No severe adverse effects |  |
| Rituximab | Anti CD20 antibody | Phase II trial, data unpublished | AChR or MuSK positive gMG | IV | 375mg/m2 body surface area per week for 4 weeks, repeated after 6 months | Infusion reactions, rare long term risk of PML | Second line option especially in refractor MUSK positive MG |
| Belimumab | BAFF inhibitor | Phase II trial, no significant benefit to standard of care(77) | AChR or MuSK positive | IV | 10mg/kg at 2-4 weeks interval | Influenza, gastric side effects | No ongoing trials |
| Bortezomib | Proteosome inhibitor | Phase II trial terminated due to recruitment issues(83) | AChR positive, anecdotal reports in MuSK positive | SC | 2 cycles, each consisting of 2 doses of 1.3mg/m2 body surface area, at10 days interval | Sensory motor polyneuropathy | May require acyclovir and trimethoprim-sulfamethoxazol prophylaxis |
| CAR T cell therapy | Autologous T cell directed against BCMA | Ongoing phase I and phase II trials(93) | Not specified gMG | IV |  | Cytokine release syndrome | FDA approved for refractor B cell leukemia and lymphoma |
| Hematopoet-ic stem cell transplantation | Ablation of auto-reactive T and Memory B cells | Ongoing Phase II(102) | Ideally in seropositive MG | IV |  | Complications related to conditioning regime |  |
| SCIG | Broad spectrum immunomodulation | Phase II trials,  As efficacious as IVIG, better patient satisfaction(110,111,115) | AChR or MuSK positive | SC | IVIG equivalent dose weekly divided dose | Injection site reactions | For maintenance treatment |
| Monarsen | Antisense oligonucleotide againt ACHE-R isoform | Phase II trial(2008),  Modest improvement(114) | AChR positive | Oral | 500microgram/kg | None | No ongoing trials |