# Conclusion

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Study was conducted to discover novel antiplasmodial agents from medicinal plants. The plants were selected for the study using ethnopharmacological approach. From the screening assay, 22 plant extracts that belonged to 12 plants were found to be antiplasmodial. These results provided validation to the traditional usage of these plants for the treatment of malaria. Four of these extracts namely, *A. paniculata* EtOH, *C. wightii* AQ, *C. zedoaria* DCM and *P. amarus* DCM were found to inhibit both the recombinantly expressed PMs, mPM I and mPM II. The expression of PMs in their active forms has been difficult to achieve to date. In the current study the recombinant expression of PM I and PM II in their mature forms namely, mPM I and mPM II was done and they were converted successfully into their active forms using the thermal-assisted refolding technique. The work introduces an approach to achieve PM I and PM II in their active forms, which is simpler than those reported earlier. Four compounds viz., 2-amino-2-ethyl-4-(methylsulfonimidoyl)butanoic acid and andrographolide from the *A. paniculata* EtOH extract and safrole and sorbitol hexaacetate from the *C. wightii* AQ extract were identified as PM inhibitors from the *in silico* studies. The compounds 2-amino-2-ethyl-4-(methylsulfonimidoyl)butanoic acid and andrographolide were concluded to form more stable complexes with the enzymes and they can be taken as lead structures to develop new antiplasmodial drugs that are inhibitors of PM I and PM II.