Contents

	Acknowledgements	iii	
	Notation	iv	
	Abstract	V	
1.	Introduction		
	1.1 Semilinear evolution equations with nonlinear constraints and age structured proliferating cell population with inherited cycle length1.2 Overview of dissertation		1 2
2.	Methods		4
	2.1 Importance of integrated semigroups		5
	2.2 Resolvent positive operators		6
	2.3 Characterization of generators of integrated semigroups		8
	2.4 Integrated Semigroups2.5 Inhomogeneous Cauchy Problem		9
	2.6 Abstract functional differential equations with non-densely defined		10
	generators		12
	2.7 Abstract semilinear boundary value evolution problem		
			17
3.	Results		
	3.1 Abstract delay semilinear boundary value evolution problem		21
	3.2 Age structured proliferating cell population with inherited cycle length including delay terms		27
	3.3 Basic Lemmas		30
4.	Discussions		
	4.1 Summary and Conclusion		33
5.	Appendix		35
6.	Bibliography	3	36