List of Figures ................................................................. vii 
List of Tables ................................................................. viii 
Preface ................................................................................ ix 
Introduction ....................................................................... 1 

PART ONE: European Philanthropy, Pietist Medicine, and the Pharmaceutical Trade

1 | The Francke Orphanage Foundations at Halle:
   The Fruit of Religious Reform ........................................... 15
      Protestant Evangelical Reform and the New Philanthropy ........ 22
      The Protestant Network .................................................. 25
      The Pietist Benefactresses—A Multitude of Women .............. 31
      The Medical Institutions of the Orphanage ....................... 41

2 | Pietist Medicine and Medical Education:
   A Radical Heritage Tempered ........................................... 49
      The Pietist Physician ..................................................... 52
      Academic Medicine and Medical Education at Halle ........... 55
      Lay Medical Education and the Printed Word .................... 60
      The Outcomes of Reform ................................................ 64

3 | The Traffic in Halle Orphanage Medications ....................... 67
   The Product and the Discourse of Pharmaceutical Reform ........ 79
   The Market: Privileged Trade and Trading Privileges ............ 87

PART TWO: German Medicine in North America, 1730–1810

4 | German Patients and German Practitioners in a New World .......... 99
   Medical Needs and Medical Markets .................................. 102
   Market Determinants: Language and Religious Affiliation ........ 107
   A Profile of German Medical Providers .............................. 112
   The Lure of the Halle Pharmaceutical Trade ....................... 116
   The Structure of the Colonial Medical Clergy ..................... 122
1.1 Map of Halle and surrounding jurisdictions ............................. 16
1.2 The Francke Orphanage in Halle ............................................. 19
1.3 The founder, August Hermann Francke ................................... 20
1.4 The founder's son, Gotthilf August Francke ................................ 21
1.5 Friedrich Michael Ziegenhagen ................................................ 29
2.1 Title page of Richter's *Die Höchst-nöthige Erkennnis* .................... 62
3.1 Christian Friedrich Richter ...................................................... 69
3.2 David Samuel von Madai ......................................................... 70
3.3 *Essentia dulcis botte* .......................................................... 79
3.4 Net profits from the Orphanage pharmaceutical business, 1728–1798 ......................... 91
4.1 Medical catchment area in the thirteen colonies, 1775 ..................... 108
4.2 Heinrich Melchior Mühlenberg ............................................... 118
5.1 Justus Heinrich Christian Helmuth ......................................... 144
5.2 Johann Christoph Kunze ......................................................... 146
7.1 Gotthilf Heinrich Ernst Mühlenberg ...................................... 190
3.1 Halle Orphanage medications (A list) .......................... 72–74
3.2 Halle Orphanage medications (B list) .......................... 75–76
3.3 Prices of Halle Orphanage medications, 1712–84 (A list) ........... 77
3.4 Halle Orphanage medications (B list) and selected prices .......... 78

4.1 Central European medical practitioners in the 
middle colonies, 1700–1810 ........................................ 114–15

4.2 Lutheran and Reformed clergy practicing medicine 
in the middle colonies, 1700–1825 ................................. 124–25

4.3 Pietist and Lutheran clergy who distributed or ordered 
Halle medicines in the middle colonies, 1742–1820 ............. 126

6.1 Halle Orphanage medications as advertised (A list) 
and additional medications (B list) ............................... 161

6.2 Pharmaceutical and commercial weights used, 
and gram equivalents ........................................... 161

6.3 Three orders for Halle Orphanage medications by 
Anna Maria Mühlengberg (A list) ................................ 172

6.4 Three orders for Halle Orphanage medications by 
Anna Maria Mühlengberg (B list) ................................ 173

6.5 Halle Orphanage medications classified by their use 
in reproductive medicine ...................................... 179

7.1 Selected orders for Halle Orphanage medications (A list), 
by Gotthilf Heinrich Ernst Mühlengberg, 1791–1801 ............ 196

7.2 Selected orders for Halle Orphanage medications (B list), 
by Gotthilf Heinrich Ernst Mühlengberg, 1791–1801 ............ 197

7.3 Advertisement in Neue Unpartheyische Lancaster Zeitung und 
Anzeignachrichten, 16 January 1788, for ten medications .......... 202