Figure 7.1A. Courtesy of Drs. Becker and Jackman
Figure 7.1B.
Figure 7.2A.
Figure 7.2B.
Retrograde Fast Pathway - 1
Retrograde Fast Pathway -2

**RAO Projection**
- Fast Pathway
- Tendon of Todaro
- AV node
- HB
- CS
- Eustachian Ridge
- Tricuspid Annulus

**LAO Projection**
- Fast Pathway
- Tendon of Todaro
- HB
- CS
- Mitral Annulus
- LA Activation
- Tricuspid Annulus
- IVC

**Figure 7.2D**
Right Inferior Extension of AV Node

Figure 7.3A.
Retrograde Conduction over the RIE -1

RAO Projection

LAO Projection

Tendon of Todaro

Fast Pathway

HB

Eustachian Ridge

CS

Tricuspid Annulus

IVC

Torrvale

Fast Pathway

Mitral Annulus

Superior

Post ↔ Ant

Inferior
Retrograde Conduction over the RIE - 2

RAO Projection

Fast Pathway

Tendon of Todaro

HB

CS

Inferior

Superior

Post

Ant

LAO Projection

Fast Pathway

Tendon of Todaro

HB

Mitral Annulus

Fast Pathway

Tricuspid Annulus

CS

IVC

Tricuspid Annulus

Fast Pathway

Eustachian Ridge

A_{SP} Potential

Figure 7.3C.
Retrograde Conduction over the RIE - 3

RAO Projection

Fast Pathway
Tendon of Todaro
HB
CS
Eustachian Ridge
Tricuspid Annulus

LAO Projection

Fast Pathway
Tendon of Todaro
HB
CS
Mitral Annulus
LA Activation
Eustachian Ridge
IVC
Tricuspid Annulus

Figure 7.3D.
Left Inferior Extension of AV Node

Figure 7.4A.
Retrograde Conduction over the LIE - 1

Figure 7.4B.

RAO Projection

LAO Projection

Superior
Post ↔ Ant
Inferior

Fast Pathway

Tendon of Todaro

Eustachian Ridge

Tricuspid Annulus

CS

TOT

HB

Fast Pathway

Tendon of Todaro

Fast Pathway

Eustachian Ridge

IVC

Tricuspid Annulus

Mitral Annulus

CS

Fast Pathway
Retrograde Conduction over the LIE - 2

RAO Projection

- Fast Pathway
- Tendon of Todaro
- HB
- TOT

LAO Projection

- Fast Pathway
- Tendon of Todaro
- HB
- Mitral Annulus
- Eustachian Ridge
- IVC
- Tricuspid Annulus

Figure 7.4C.
Figure 7.4D.

Retrograde Conduction over the LIE - 3

- Superior
- Post ↔ Ant
- Inferior

RAO Projection

- Fast Pathway
- Tendon of Todaro
- HB
- TOT
- Eustachian Ridge
- CS
- Tricuspid Annulus

LAO Projection

- Fast Pathway
- Tendon of Todaro
- HB
- Eustachian Ridge
- IVC
- CS

- Activation of CS myocardium
- LA Activation
- Fast Pathway
- Mitral Annulus

Figure 7.4D.
Figure 7.5A.

Antegrade Limb

RBB

LBB

HBB

Retrograde Limb

Lower Common Pathway

Antegrade Limb

RBB

LBB

Retrograde Limb

IB
Figure 7.5B.

- **A** = time from green star to blue star
- **B** = time from green star to red star
- **A** – **B** = HA interval in AVNRT

Legend:
- Antegrade Limb
- Retrograde Limb
- Lower Common Pathway
- RBB
- LBB
Lower Common Pathway

Antegrade Limb

Retrograde Limb

A = time from green start to blue star

B = time from green start to red star

A + B = HA interval in RV pacing

RV Pacing

Figure 7.5C.
A – B = HA interval in AVNRT

A + B = HA interval in RV pacing

2 x LCP conduction time = [A + B] – [A – B]

Figure 7.5D.
Figure 7.5E.
Figure 7.5F.

Slow/Fast AVNRT

- HB
- AVN
- Retrograde limb
- Antegrade limb
- LCP

Slow/Slow AVNRT

- HB
- AVN
- Retrograde limb
- Antegrade limb
Figure 7.6A.
Figure 7.6B.
Figure 7.6C.
Figure 7.6D.
Figure 7.7A.
Figure 7.7B.

Slow/Fast AVNRT - RIE

RAO

LAO
Figure 7.7C. Slow/Fast AVNRT - RIE
Figure 7.7D.
Figure 7.8A.

Slow/Fast AVNRT - LIE

RAO

Superior

Post ↔ Ant

Inferior

LAO

Fast Pathway

Tendon of Todaro

HB

Fast Pathway

Tendon of Todaro

Tricuspid Annulus

CS

Eustachian Ridge

IVA

Mitral Annulus

CS
Slow/Fast AVNRT - LIE

RAO

Superior
Post ↔ Ant
Inferior

LAO

Fast Pathway

Tendon of Todaro

HB

CS

Eustachian Ridge

Tricuspid Annulus

Fast Pathway

Tendon of Todaro

HB

Mitral Annulus

Eustachian Ridge

Tricuspid Annulus

Tricuspid Annulus

CS

LA Activation

Fast Pathway

Figure 7.8B.
Slow/Fast AVNRT - LIE

RAO

Superior
Post
Ant
Inferior

LAO

Fast Pathway
Tendon of Todaro
HB
CS
Eustachian Ridge
Tricuspid Annulus

Tendon of Todaro
Fast Pathway
HB
Mitral Annulus
Eustachian Ridge
Tricuspid Annulus
IVC
CS

LA Activation

Figure 7.8C.
Slow/Fast AVNRT - LIE

Fast Pathway

Tendon of Todaro

HB

Tricuspid Annulus

Eustachian Ridge

Bystander RIE

CS

Mitral Annulus

Eustachian Ridge

LAO

RAO

Superior

Post

Ant

Inferior

Activation of CS Myocardium

Fast Pathway

Activation of CS Myocardium

Bystander RIE

Figure 7.8D.
Slow/Fast AVNRT – Left Atrium

**RAO**
- Fast Pathway
- Tendon of Todaro
- HB
- CS
- Eustachian Ridge
- Tricuspid Annulus

**LAO**
- Fast Pathway
- Tendon of Todaro
- HB
- CS
- Mitral Annulus
- Eustachian Ridge
- Tricuspid Annulus

**Figure 7.9A.**
Slow/Fast AVNRT – Left Atrium

RAO

Superior

Post ↔ Ant

Inferior

LAO

Fast Pathway

Tendon of Todaro

HB

CS

Eustachian Ridge

Tricuspid Annulus

Tendon of Todaro

Fast Pathway

Mitral Annulus

Fast Pathway

LA Activation

LAO

LAO

Mitral Annulus

Tricuspid Annulus

IVC

Tricuspid Annulus

Figure 7.9B.
Figure 7.9C. Slow/Fast AVNRT – Left Atrium

- Superior
- Post ↔ Ant
- Inferior

RAO
- Fast Pathway
- Tendon of Todaro
- HB
- CS
- Eustachian Ridge
- Tricuspid Annulus

LAO
- Fast Pathway
- Tendon of Todaro
- HB
- LA Activation
- LA
- Fast Pathway
- Eustachian Ridge
- Tricuspid Annulus
- CS
- IVC
Slow/Fast AVNRT – Left Atrium

RAO

Superior
Post  Ant
Inferior

LAO

Fast Pathway

Tendon of Todaro

HB

CS

Eustachian Ridge

Tricuspid Annulus

Bystander RIE

Fast Pathway

Tendon of Todaro

HB

Eustachian Ridge

Fast Pathway

Bystander RIE, LIE

Activation of CS Myocardium

LA Activation

Figure 7.9D.
Figure 7.10A

Slow/Slow AVNRT

Fast/Slow AVNRT

RAO

Tendon of Todaro

Eustachian Ridge

HB

TA

LIE

RIE

???
**Figure 7.10B**

Slow/Slow AVNRT

Fast/Slow AVNRT

Site of earliest activation
Figure 7.11A.
Figure 7.11B.
Figure 7.12A
Figure 7.12B
Figure 7.12D
Figure 7.13A.

**Slow/Fast AVNRT - RIE**

- **RAO**
  - Fast Pathway
  - Tendon of Todaro
  - CS Potential
  - Eustachian Ridge
  - Tricuspid Annulus

- **LAO**
  - Fast Pathway
  - Tendon of Todaro
  - Mitral Annulus
  - LA Activation
  - Activation of CS Myocardium
  - IVC

**Directional Indicators**
- Superior
- Post
- Ant
- Inferior
Slow/Fast AVNRT - LIE

RAO

Superior
Post Ant
Inferior

LAO

Fast Pathway
Tendon of Todaro
HB
CS
Eustachian Ridge
Tricuspid Annulus
IVC

LA Activation
Mitral Annulus
Activation of CS Myocardium
Slow/Fast AVNRT – Posterolateral LA

Figure 7.13C.
Figure 7.13D.

Slow/Slow or Fast/Slow AVNRT

RAO

Tendon of Todaro

Eustachian Ridge

HB

TA

Superior

Post ↔ Ant

Inferior

LAO

HB

Eustachian Ridge

IVC

LIE

RIE

???
Figure 7.14A.
Figure 7.15A.
Figure 7.15B.
Figure 7.15C.
Figure 7.15D.
Figure 7.16A. Courtesy of Dr. Jackman
Figure 7.16B.

RAO

LAO

Ablation Catheter

SL2 sheath

SL2 sheath
Figure 7.17A.
Figure 7.17C.
Figure 7.17D.
Figure 7.17E.
Figure 7.17F.
Figure 7.18A.
Figure 7.18B.
Figure 7.18D.
Figure 7.18E.
Figure 7.18F.
Figure 7.19A.
Figure 7.19B.
Figure 7.19C.
Figure 7.19E.
CS angiography

Resetting/ablation Site

Figure 7.19F.
Figure 7.19G.
Figure 7.19H.
Figure 7.19I.
Figure 7.19J.
Figure 7.20A
Figure 7.20B.
Figure 7.20C.
Figure 7.20D.
Resetting from Left Inferior Extension of AVN

**Figure 7.20E.**
Figure 7.20F.
Resetting from Right Inferior Extension of AVN

Figure 7.20G.
Figure 7.20l.
Figure 7.20J.